WATER RECLAMATION AND REUSE ADDENDUM TO AN APPLICATION FOR A VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT OR A VIRGINIA POLLUTION ABATEMENT PERMIT

A. Applicant Information

1. Facility	Name	Leesburg Water Pollution Control Plant		
	Location (street, route no. or other identifier)	1391 East Market Street		
	Countyor city	Leesburg		
	Latititude	39◦ 06' 54"	Longitude	77◦ 30' 15"
2. Owner	Name	Town of Leesburg		
	Mailing address (street or P.O. box, city, state and zip code)	25 West Market Street Leesburg, VA 20176		
	Telephone number	703-737-7119 (Amy Wyks, Director of Utilities)		
	Fax number			
	E-mail address	awyks@leesburgva.gov		
3. Operator*	Name	Charles Rockholt, Utility Plant Manager		
	Mailing address (street or P.O. box, city, state and zip code)	1391 East Market Street Leesburg, VA 20176		
	Telephone number	703-737-7092		
	Fax number			
	E-mail address	erockholt@leesburgva.gov		

* If the operator of the facility is not the owner, complete A.3.

B. Permitting Information

1. This addendum is for a <u>new</u> (check all that apply):

   ☐ Reclamation system.
   ☐ Satellite reclamation system.
   ☒ Reclaimed water distribution system.
   ☐ End user[1].
   ☐ Not applicable. Proceed to B.2.

   Will the above new system or systems or end user be an expansion or modification[2] to an existing permitted system or end user[1]? (See numbered footnotes on the last page of the addendum)

   ☒ No. Proceed to item B.3.
   ☐ Yes. Proceed to item B.2.

2. This addendum is for an <u>existing</u> (check all that apply):

☐ Reclamation system.
☐ Satellite reclamation system.
☐ Reclaimed water distribution system.
☐ End user[1].

a. Provide the following information for each existing system or end user[1]:

System or End User[1] Name	Type of current permit issued (VPDES or VPA)	Permit Number	Permit Expiration Date

b. List by name all existing permitted systems or end users[1] in B.2.a of the addendum to be expanded or modified[2].

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3. For reclamation systems, satellite reclamation systems, reclaimed water distribution systems and end users[1] that are (i) new, (ii) existing but unpermitted, or (iii) existing, permitted and to be expanded or modified[2]:

a. Is or will there be any combination of the systems, end users[1], or wastewater treatment works under common ownership or management, including those physically separated from each other?

☒ No. Proceed to B.3.d.
☐ Yes. Provide the following information for all systems, end users[1] or wastewater treatment works under common ownership or management:

Designation of Facility*	Name of System, End User[1] or Wastewater Treatment Works	Name of Common Ownership or Management

* Designation of facility refers to reclamation system, satellite reclamation system, reclaimed water distribution system, end user[1] or wastewater treatment works.

b. Identify by name any combination of the systems (i.e., reclamation, satellite reclamation, reclaimed water distribution), end users[1] or wastewater treatment works with common ownership or management listed in B.3.a. to be covered by one permit. (See addendum instructions)

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c. Identify by name any of the systems, end users[1] or wastewater treatment works with common ownership or management listed in B.3.a. to be covered by separate permits.

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d. Will a wastewater treatment works, reclamation system, satellite reclamation system or reclaimed water distribution system provide reclaimed water to irrigate property under common ownership or management with that wastewater treatment works, reclamation system, satellite reclamation system or reclaimed water distribution system?

☒ No.
☐ Yes. Provide the following information

Name of Wastewater Treatment Works or System (Reclamation, Satellite Reclamation, Reclaimed Water Distribution)	Location of Irrigation Property*

* Refers to irrigation property that receives or will receive reclaimed water from and is under common ownership or management with the named wastewater treatment works or system in the first column. (See addendum instructions)

c. Will a reclaimed water distribution system that receives reclaimed water from a reclamation system or satellite reclamation system under separate ownership from the reclaimed water distribution system, distribute reclaimed water to end users other than the owner or management of the reclaimed water distribution system?

☐ Yes.
☒ No.

If no, will there be a service agreement established between the permittee of the reclamation system and the ownership or management of the reclaimed water distribution system?

☒ Yes.
☐ No.

4. For each end user[1], list all the reclamation systems, satellite reclamation systems and reclaimed water distributions from which the end user[1] will receive reclaimed water; and for each listed system, indicate the Level of reclaimed water (i.e., Level 1, Level 2 or both) that it will provide to the end user[1] and if the end user[1] has a service agreement or contract with that system.

Name of System (Reclamation, Satellite Reclamation, Reclaimed Water Distribution)	Level of Reclaimed Water Provided to End User[1] (Level 1, Level 2 or both)	Service Agreement or Contract with End User[1] (Yes/No)
WPCF Reclaimed Water Distribution System ("purple" line)	Level 2	Yes

a. Will the end user[1] be under common ownership or management with any of the reclamation systems, satellite reclamation systems or reclaimed water distribution systems listed above?

☒ No.
☐ Yes.

If yes, will the end user[1] be covered by the permit of the system?

☐ No.
☐ Yes. Indicate the name of the system: _____

b. For all systems listed in B.4 with which the end user[1] has a service agreement or contract, has the end user[1] received notice of failure to comply with the service agreement or contract from any of these systems?

☒ No.
☐ Yes. If yes, indicate below the name(s) of the system(s) that issued notice(s) of failure to comply, the date of all notices and a brief description of cause for each notice. Additional information may be attached as necessary. If more than one system has issued a notice of failure to comply to the end user[1], complete D.1.a, D.1.b and D.1.c; D.2 if the reuse of the end user[1] includes irrigation, and E of the addendum. (See addendum instructions)

Name of System that Issued Notice	Date of Notice	Description of Cause for Notice

c. Will the end user[1] blend the reclaimed water that it receives from two or more of the systems listed in B.4?

☒ No.
☐ Yes.

If yes, will the end user[1] blend Level 1 and Level 2 reclaimed water?

☐ No.
☐ Yes.

d. Will the end user[1] distribute an portion of the blended reclaimed water to other end users not under common ownership or management with the end user[1]?

☒ No.
☐ Yes. If yes, complete applicable sections in C and D of this addendum. (See addendum instructions)

C. General Project Information (See addendum instructions)

For reclamation systems, satellite reclamation systems, and reclaimed water distribution systems, provide the following information. For projects that involve exclusively the distribution of reclaimed water, provide information for only items C.1., C.2., and C.6.

1. A description of the design and a site plan of each system. (See addendum instructions)

2. A general location map. (See addendum instructions)

3. Information regarding each wastewater treatment works that diverts or will divert effluent or source water to the reclamation system to be permitted.

a. Name of Wastewater Treatment Works	VPDES or VPA Permit No. of Facility	General VPDES Watershed Permit No.*
Leesburg Water Pollution Control Facility	VA0092282	

* Refers to a permit issued in accordance with the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9VAC25-820), and applies only to facilities with existing individual VPDES permits.

b. List all unit wastewater treatment processes used at each wastewater treatment works prior to diversion to the reclamation system.

See information provided in the VPDES permit application - no new treatment processes added.

c. For only those wastewater treatment works listed in C.3.a with one or more significant industrial users (SIUs) indirectly discharging to the treatment works, provide the following information. (See addendum instructions)

Name of Wastewater Treatment Works	Name of All SIUs Indirectly Discharging to Each Wastewater Treatment Works	Approved Pretreatment Program (Yes/No/NA)*

* Refers to a pretreatment program developed in accordance with the VPDES Permit Regulation (9VAC25-31) or an equivalent program developed in accordance with the Water Reclamation and Reuse Regulation (9VAC25-740) for treatment works with SIUs, and approved by the Department of Environmental Quality. "NA" means "not applicable".

d. Provide analyses of the effluent or source water to be diverted by each wastewater treatment works to the reclamation system. (See addendum instructions)

_____

4. Information regarding the sewage collections system that diverts or will divert sewage to the satellite reclamation system to be permitted.

a. The name of the sewage collection system and the owner of that system.

_____

b. For the treatment works at the end of the sewage collection system that receives or will receive all remaining sewage, provide:

Name of the treatment works: _____

VPDES or VPA permit no.: _____

c. Provide the following information for each SIU that discharges directly or indirectly to the sewage collection pipeline from which sewage or municipal wastewater is or will be diverted to the satellite reclamation system, excluding any downstream SIUs whose discharge has no potential to backflow to the satellite reclamation system intake.

Name of SIU	Location (Latitude & Longitude) of SIU	Distance Between SIU and Satellite Reclamation System*

* Distance along the length of the sewage collection system line or lines.

d. Provide concentrations of the following parameters for sewage or municipal wastewater to be diverted from the sewage collection system to the satellite reclamation system at the point of diversion. Analyses for other parameters may be provided, if available. Analyses of the sewage or municipal wastewater for pollutants of concern believed to be discharged by the SIUs identified in C.4.c may also be required. (See addendum instructions)

BOD_5 (mg/l) _____

TSS (mg/l) _____

Other (if available or required for SIU discharges):

_____

5. Information regarding the reclamation system or satellite reclamation system to be permitted.

a. Indicate if the system will reclaim industrial wastewater as follows: (See addendum instructions)

- ☐ At an industrial facility for reuse exclusively on the property of the industrial facility. Complete C.5.b.
- ☐ At an industrial facility for reuse on and off, or exclusively off the property of the industrial facility
- ☐ As part of a mixture with sewage or municipal wastewater where the industrial wastewater composes less than or equal to 90 % of the mixture
- ☐ As part of a mixture with sewage or municipal wastewater where the industrial wastewater composes greater than 90 % of the mixture

b. For reuse of reclaimed industrial wastewater on exclusively the property of the industrial facility where the reclaimed water is produced, check all that apply:

- ☐ The reclaimed industrial wastewater for reuse does not contain or is not expected to contain pathogens or other constituents in sufficient quantities and with a potential for human contact that may be harmful to human health.
- ☐ Reuse of the reclaimed industrial wastewater involves a closed or isolated system that prevents worker contact with reclaimed water of the system.
- ☐ Other measures are in place including but not limited to, applicable federal and state occupational safety and health standards and requirements to adequately inform and protect employees from pathogens or other constituents that may be harmful to human health in the reclaimed industrial water to be reused at the industrial facility.

If none of the above in C.5.b. apply, complete the remainder of the addendum. If any of the above in C.5.b. apply, the reuse is excluded from the requirements of the Water Reclamation and Reuse Regulation. For any other water reclamation and reuse projects or portions of projects described in the addendum that do not qualify for this exclusion, complete remaining applicable sections of the addendum. (See addendum instructions)

c. Identify the quality of reclaimed water to be produced relative to the planned reuse or reuses of the reclaimed water: (See addendum instructions)

- ☐ Level 1
- ☒ Level 2
- ☐ Level 1 and Level 2
- ☐ Industrial (applicable to reclamation of industrial wastewater)
- ☐ Unknown (applicable to unlisted reuses)

d. List any other physical, chemical, and biological characteristics and constituent concentrations that may affect the intended reuse of the reclaimed water with respect to adverse impacts to public health or the environment. (See addendum instructions)

None.

e. Indicate the designated design capacity of the reclamation system or satellite reclamation system. (See addendum instructions)

The reclamation pipeline (or "purple" line) will be sized to deliver 7.5 MGD (not to exceed) of reclaimed water to the power plant. The size of the pipeline has not been defined yet.

6. For each proposed reuse of reclaimed water (reclaimed from municipal or industrial wastewater) that is not listed in 9VAC25-740-90 A of the Water Reclamation and Reuse Regulation or for each reuse of reclaimed industrial wastewater that is listed in 9VAC25-740-90 A, provide the following information.

a. Describe the proposed reuse.

Reclaimed treated wastewater effluent will be used for cooling at a new combined cycle power plant facility.

b. Describe any known risks of the proposed reuse to public health.

None.

c. Describe the degree of public access and human exposure, including worker contact, to reclaimed water that is or will be caused by the proposed reuse.

None, reclaimed water will be used for cooling purposes only. No direct worker contact should occur.

d. Indicate the reclaimed water treatment necessary to prevent nuisance conditions by the proposed reuse.

None.

e. Describe the potential for improper or unintended use of reclaimed water resulting from the proposed reuse. (See addendum instructions)

None.

f. For new indirect potable reuse proposals, provide the following information:

(1) Name of the surface water to receive the reclamation system discharge and from which water will be withdrawn for potable water supply: (See addendum instructions)

_____

(2) Receiving water body type:

- ☐ Lake or pond
- ☐ River or stream

(3) Name of water treatment facility that will withdraw water for potable water supply: _____

(4) Attach a map that shows the location of both the discharge from the reclamation system and the intake of the water treatment facility.

(5) Approximate the shortest distance by way of the surface water named in C.6.f (1) above, between the discharge of the reclamation system and the intake of the water treatment facility: _____(feet)

(6) Approximate the residence or transport time between the discharge of the reclamation system and the intake of the water treatment facility: _____

(7) Approximate the mixing ratio of reclaimed water to ambient water at the intake of the water treatment facility: _____

D. Reclaimed water management (RWM) plan

1. For a reclamation system, satellite reclamation system or reclaimed water distribution system that provides or will provide reclaimed water directly to an end user or end users, including an end user that is also the applicant or permittee, submit a Reclaimed Water Management (RWM) plan to contain the following information. (See addendum instructions)

a. A description and map of the expected service area to be covered by the RWM plan for the term of the permit for the project.

b. A current inventory of impoundments, ponds or tanks within the service area under D.1.a of the addendum, used for:

(1) System storage of reclaimed water and, as applicable, reject water storage that are under the control of the applicant or permittee; and

(2) Non-system storage of reclaimed water.

c. A water balance that accounts for the volumes of reclaimed water to be generated, stored, reused and discharged.

d. An example of service agreements or contracts to be established by the applicant or permittee with end users regarding implementation of and compliance with the RWM plan.

e. A description of monitoring of end users by the applicant or permittee to verify compliance with the terms of their agreements or contracts. Monitoring must include, at a minimum, metering the volume of reclaimed water consumed by end users.

f. An education and notification program.

g. A cross-connection and backflow prevention program.

h. A description of how the quality of reclaimed water in the reclaimed water distribution system will be maintained to meet standards for the intended reuse(s) of that reclaimed water.

2. Supplemental irrigation rates, nutrient management plans (NMPs) and site plans for irrigation reuse of reclaimed water.

a. Do the reuse categories identified within the service area under D.1.a of the addendum include irrigation reuses of reclaimed water as follows? (See addendum instructions)

☐ Bulk irrigation reuse.
☐ Non-bulk irrigation reuse.
☒ There will be no irrigation reuses. (Proceed to E.)

b. Will all irrigation with reclaimed water within the service area of the RWM plan be supplemental irrigation? (See addendum instructions)

☐ Yes. Explain how supplemental irrigation rates will be achieved for bulk and non-bulk irrigation reuse of reclaimed water.
☐ No. (Proceed to E.)

c. Indicate the concentration of total nitrogen (N) and total phosphorus (P) present or expected to be present in the reclaimed water for irrigation reuse:

☐ Annual average concentration of total N and total P greater than 8.0 mg/l and 1.0 mg/l, respectively (> Biological Nutrient Removal or BNR);

or

☐ Annual average concentration of total N and total P less than or equal to 8.0 mg/l and 1.0 mg/l, respectively (≤ BNR).

d. For each irrigation property listed under B.3.d of this addendum that is a bulk irrigation reuse site, submit the following with the RWM plan: (See addendum instructions)

(1) A nutrient management plan if:

(a) The reclaimed water applied to the irrigation reuse site is > BNR (see D.2.c above), or

(b) Independent of the reclaimed water nutrient content and in addition to irrigation reuse (i) there is no option to dispose of the reclaimed water through a VPDES permitted discharge, or (ii) there is an option to dispose of the reclaimed water through a VPDES permitted discharge, but the VPDES permit does not allow discharge of the full nutrient load under design flow. With the nutrient management plan, provide a copy of the letter from the Department of Conservation and Recreation, Division of Soil and Water Conservation approving the nutrient management plan.

(2) A site plan.

e. For all non-bulk irrigation reuse of reclaimed water that is > BNR (see D.2.c above) within the service area specified in D.1.a, including each irrigation property listed under B.3.d that is a non-bulk irrigation reuse site, describe measures that are or will be implemented to manage nutrient loads from the non-bulk irrigation reuse. Attach additional information as needed. (See addendum instructions)

E. Certification Statement (See addendum instructions)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	Amy R. Wyks	Date: 12/3/13
Name of person signing above (printed or typed):	Amy Wyks	
Title:	Director of Utilities, Town of Leesburg	
Signature:		Date:
Name of person signing above (printed or typed):		
Title:		

Addendum Footnotes

1. Refers specifically to an end user that receives reclaimed water from more than one reclamation system, satellite reclamation system, reclaimed water distribution system, or a combination thereof.

2. For the purposes of this addendum, modification to an existing system (i.e., reclamation system, satellite reclamation system or reclaimed water distribution system) or end user[1] is any change to the facilities or reuses of that system or end user[1], respectively, warranting the inclusion of new reclaimed water standards, monitoring requirements or conditions in the permit currently issued to the existing system or end user[1].

Town of Leesburg Virginia

AMY R. WYKS, P.E.
Director of Utilities

1385 East Market Street ■ 20176 ■ 703-771-2750 ■ Fax: 703-737-7185 ■ awyks@leesburgva.gov ■ www.leesburgva.gov

March 20, 2013

Doug Frasier, VPDES Permit Writer, Senior II
Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, Virginia 22193

Re: VPDES Permit No. VA0092282, Town of Leesburg Water Pollution Control Facility
Loudoun County

Dear Mr. Frasier:

Enclosed please find a printed and electronic copy of VPDES and Sewage Sludge Permit Renewal Applications. Included are the required EPA Form 2A with supporting attachments, VPDES Permit Application Addendum and Public Notice Billing Information Form.

Sincerely,

Amy R. Wyks

Amy R. Wyks
Director of Utilities

Attachments

Cc: John A. Wells, Town Manager
Charles E. Rockholt / Utility Plant Manager, WPCD

Town of Leesburg
Water Pollution Control Facility
EPA ID Number: VA0092282

Virginia Pollutant Discharge Elimination System (VPDES) and Sewage Sludge Permit Renewal Application

March 2013

Contents

NPDES Form 2A
Application Overview

FACILITY NAME AND PERMIT NUMBER:
Leesburg Water Pollution Control Facility, VPDES No. VA0092282

Form Approved 1/14/99
OMB Number 2040-0086

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: Leesburg Water Pollution Control Facility

Mailing Address: 25 West Market Street
Leesburg, VA 20176

Contact person: Charles E. Rockholt

Title: Utility Plant Manager, WPCD

Telephone number: (703) 737-7092

Facility Address (not P.O. Box): 1391 East Market Street
Leesburg, VA 20176

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: Town of Leesburg

Mailing Address: 25 West Market Street
Leesburg, Va. 20176

Contact person: Amy Wyks

Title: Director of Utilities

Telephone number: (703) 737-7119

Is the applicant the owner or operator (or both) of the treatment works?

✓ owner ✓ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility ✓ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA0092282 PSD _____

UIC _____ Other General Permit for Nutrients # VAN010061

RCRA _____ Other Industrial SW Permit # VAR 051427

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Leesburg, Virginia	51,000	Separate Sanitary	Municipal

Total population served 51,000

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 7.5 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	5.4	4.9	4.5	mgd
c. Maximum daily flow rate	8.8	8.3	9.5	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✓ Separate sanitary sewer	100 %
_____ Combined storm and sanitary sewer	_____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✓ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent	1
ii. Discharges of untreated or partially treated effluent	0
iii. Combined sewer overflow points	0
iv. Constructed emergency overflows (prior to the headworks)	0
v. Other _____	0

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✓ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✓ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name:

Mailing Address:

Contact person:

Title:

Telephone number:

For each treatment works that receives this discharge, provide the following:

Name:

Mailing Address:

Contact person:

Title:

Telephone number:

If known, provide the NPDES permit number of the treatment works that receives this discharge.

Provide the average daily flow rate from the treatment works into the receiving facility. mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? Yes ✓ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method:

Is disposal through this method continuous or intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number 001

b. Location

(City or town, if applicable)	(Zip Code) 20842
Montgomery	Maryland
(County)	(State)
39 Degrees 06M 54S	77 Degrees 30M 15S
(Latitude)	(Longitude)

c. Distance from shore (if applicable) 30 ft.

d. Depth below surface (if applicable) 4 ft.

e. Average daily flow rate 4.5 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ____ Yes ✓ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: ____

Average duration of each discharge: ____

Average flow per discharge: ____ mgd

Months in which discharge occurs: ____

g. Is outfall equipped with a diffuser? ____ Yes ✓ No

A.10. Description of Receiving Waters.

a. Name of receiving water Potomac River

b. Name of watershed (if known) Middle Potomac - Catoctin

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): ____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 02070008

d. Critical low flow of receiving stream (if applicable):
acute ____ cfs chronic 464 cfs

e. Total hardness of receiving stream at critical low flow (if applicable): ____ mg/l of $CaCO_3$

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

✓ Primary ✓ Secondary
✓ Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	98 %
Design SS removal	94.5 %
Design P removal	80 %
Design N removal	80 %
Other _____	_____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination/Dechlorination both controlled by ORP

If disinfection is by chlorination, is dechlorination used for this outfall? ✓ Yes _____ No

d. Does the treatment plant have post aeration? ✓ Yes _____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.5	s.u.			
pH (Maximum)	7.3	s.u.			
Flow Rate	9.5	MGD	4.5	MGD	Continuous
Temperature (Winter)	71	Degrees F	63	Degrees F	3/D Grab
Temperature (Summer)	83	Degrees F	76	Degrees F	3/D Grab

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN	BOD-5							
DEMAND (Report one)	CBOD-5	1.1	mg/L	0.003	mg/L	1/D 24HC	5210 - B	0.1 mg/L
ECOLI				1	cfu/100ml	1/D Grab	9222 - D	1 CFU/CML
TOTAL SUSPENDED SOLIDS (TSS)		58	mg/L	0.41	mg/L	1/D 24 H	2540 - D	0.1 mg/L

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

< 200,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The Town is making investments to reduce I&I, relining pipes and repairing leaks in manholes and service laterals

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.) See Attachment 1.

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram. See Attachment 2.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ____Yes ✓ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

N/A

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____Yes ✓ No

c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

_____

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

	Schedule	Actual Completion
Implementation Stage	MM / DD / YYYY	MM / DD / YYYY
– Begin construction	___/___/_____	___/___/_____
– End construction	___/___/_____	___/___/_____
– Begin discharge	___/___/_____	___/___/_____
– Attain operational level	___/___/_____	___/___/_____

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ____Yes ____No

Describe briefly: _____

_____

B.6. EFFLUENT TESTING DATA (GREATER THAN O.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL, TRC)	< 0.1	mg/L	< 0.1	mg/L	3/D Grab	4500 - CLG	0.1 mg/L
DISSOLVED OXYGEN	10.60	mg/L	8.48	mg/L	3/D Grab	4500 - OG	0.1 mg/L
TOTAL KJELDAHL NITROGEN (TKN)	9.11	mg/L	1.05	mg/L	1/D 24HC	4500 - N	0.1 mg/L
NITRATE PLUS NITRITE NITROGEN	13.72	mg/L	4.10	mg/L	1/D 24HC	4500 - NO2B	0.1 mg/L
OIL and GREASE	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PHOSPHORUS (Total)	4.51	mg/L	0.64	mg/L	1/D 24HC	4500 - P	0.1 mg/L
TOTAL DISSOLVED SOLIDS (TDS)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Leesburg Water Pollution Control Facility, VPDES No. VA0092282

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✓ Basic Application Information packet

Supplemental Application Information packet:

✓ Part D (Expanded Effluent Testing Data)

✓ Part E (Toxicity Testing: Biomonitoring Data)

____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: John A. Wells, Town Manager

Signature: John A. Wells

Telephone number: (703) 777-2420

Date signed: 3/19/13

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
Leesburg Water Pollution Control Facility, VPDES No. VA0092282

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	0.02	mg/L			<0.02	mg/L			3	EPA 200.7	0.02 mg/L
ARSENIC	<0.02	mg/L			<0.02	mg/L			3	EPA 200.7	0.02 mg/L
BERYLLIUM	<0.005	mg/L			<0.005	mg/L			3	EPA 200.7	0.005 mg/L
CADMIUM	<0.005	mg/L			<0.005	mg/L			3	EPA 200.7	0.005 mg/L
CHROMIUM	<0.01	mg/L			<0.01	mg/L			3	EPA 200.7	0.01 mg/L
COPPER	<0.01	mg/L			<0.01	mg/L			3	EPA 200.7	0.01 mg/L
LEAD	<0.01	mg/L			<0.01	mg/L			3	EPA 200.7	0.01 mg/L
MERCURY	<0.0005	mg/L			<0.0005	mg/L			3	EPA 245.1	0.005 ug/L
NICKEL	<0.02	mg/L			<0.02	mg/L			3	EPA 200.7	0.02 mg/L
SELENIUM	0.03	mg/L			<0.02	mg/L			3	EPA 200.7	0.02 mg/L
SILVER	<0.02	mg/L			<0.02	mg/L			3	EPA 200.7	0.02 mg/L
THALLIUM	0.02	mg/L			<0.01	mg/L			3	EPA 200.7	0.01 mg/L
ZINC	0.05	mg/L			0.04	mg/L			3	EPA 200.7	0.02 mg/L
CYANIDE	<0.005	mg/L			<0.005	mg/L			3	EPA 335.4	0.005 mg/L
TOTAL PHENOLIC COMPOUNDS	<0.01	mg/L			<0.01	mg/L			3	EPA 420.4	0.01 mg/L
HARDNESS (AS $CaCO_3$)	190	mg/L			167	mg/L			3	SM-2340 C	1
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

FACILITY NAME AND PERMIT NUMBER:
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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	<10	ug/L			<10	ug/L			3	EPA 624	10 ug/L
ACRYLONITRILE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
BENZENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
BROMOFORM	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
CARBON TETRACHLORIDE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
CLOROBENZENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
CHLORODIBROMO-METHANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
CHLOROETHANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
2-CHLORO-ETHYLVINYL ETHER	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
CHLOROFORM	21	ug/			20	ug/L			3	EPA 624	5 ug/L
DICHLOROBROMO-METHANE	7	ug/L			6	ug/L			3	EPA 624	5 ug/L
1,1-DICHLOROETHANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
1,2-DICHLOROETHANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
TRANS-1,2-DICHLORO-ETHYLENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
1,1-DICHLOROETHYLENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
1,2-DICHLOROPROPANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
1,3-DICHLORO-PROPYLENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
ETHYLBENZENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
METHYL BROMIDE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
METHYL CHLORIDE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
METHYLENE CHLORIDE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
1,1,2,2-TETRACHLORO-ETHANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
TETRACHLORO-ETHYLENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
TOLUENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
1,1,2-TRICHLOROETHANE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
TRICHLORETHYLENE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
VINYL CHLORIDE	<5	ug/L			<5	ug/L			3	EPA 624	5 ug/L
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
2-CHLOROPHENOL	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
2,4-DICHLOROPHENOL	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
2,4-DIMETHYLPHENOL	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
4,6-DINITRO-O-CRESOL	<10	ug/L			<10	ug/L			3	EPA 625	10 ug/L
2,4-DINITROPHENOL	<10	ug/L			<10	ug/L			3	EPA 625	10 ug/L
2-NITROPHENOL	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
4-NITROPHENOL	<10	ug/L			<10	ug/L			3	EPA 625	10 ug/L
PENTACHLOROPHENOL	<10	ug/L			<10	ug/L			3	EPA 625	10 ug/L
PHENOL	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
2,4,6-TRICHLOROPHENOL	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
ACENAPHTHYLENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
ANTHRACENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BENZIDINE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BENZO(A)ANTHRACENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BENZO(A)PYRENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L

FACILITY NAME AND PERMIT NUMBER:
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Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BENZO(GHI)PERYLENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BENZO(K)FLUORANTHENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BIS (2-CHLOROETHOXY) METHANE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BIS (2-CHLOROETHYL)-ETHER	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BIS (2-CHLOROISO-PROPYL) ETHER	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BIS (2-ETHYLHEXYL) PHTHALATE	18	ug/L			11	ug/L			3	EPA 625	5 ug/L
4-BROMOPHENYL PHENYL ETHER	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
BUTYL BENZYL PHTHALATE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
2-CHLORONAPHTHALENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
4-CHLORPHENYL PHENYL ETHER	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
CHRYSENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
DI-N-BUTYL PHTHALATE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
DI-N-OCTYL PHTHALATE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
DIBENZO(A,H) ANTHRACENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
1,2-DICHLOROBENZENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
1,3-DICHLOROBENZENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
1,4-DICHLOROBENZENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
3,3-DICHLOROBENZIDINE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
DIETHYL PHTHALATE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
DIMETHYL PHTHALATE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
2,4-DINITROTOLUENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
2,6-DINITROTOLUENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
1,2-DIPHENYLHYDRAZINE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L

FACILITY NAME AND PERMIT NUMBER:
Leesburg Water Pollution Control Facility, VPDES No. VA0092282

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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
FLUORENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
HEXACHLOROBENZENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
HEXACHLOROBUTADIENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
HEXACHLOROCYCLO-PENTADIENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
HEXACHLOROETHANE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
INDENO(1,2,3-CD)PYRENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
ISOPHORONE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
NAPHTHALENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
NITROBENZENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
N-NITROSODI-N-PROPYLAMINE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
N-NITROSODI- METHYLAMINE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
N-NITROSODI-PHENYLAMINE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
PHENANTHRENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
PYRENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L
1,2,4-TRICHLOROBENZENE	<5	ug/L			<5	ug/L			3	EPA 625	5 ug/L

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

✓ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: 1 Test number: 2 Test number: _____

a. Test information.

Test species & test method number	C. dubia EPA 1002.0	P. promelas EPA 1000.0	
Age at initiation of test	24 hours	24 hours	
Outfall number	001	001	
Dates sample collected	9/24/12	9/24/12	
Date test started	9/25/12	9/25/12	
Duration	48 hours	48 hours	

b. Give toxicity test methods followed.

Manual title	Whole Effluent Toxicity (WET)	Whole Effluent Toxicity (WET)	
Edition number and year of publication	4th edition, 2002	4th edition, 2002	
Page number(s)	141-195	112-140	

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite			
Grab	X	X	

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination	X	X	

FACILITY NAME AND PERMIT NUMBER:
Leesburg Water Pollution Control Facility, VPDES No. VA0092282

Form Approved 1/14/99
OMB Number 2040-0086

	Test number: 1	Test number: 2	Test number:
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	at outfall structure	at outfall structure	
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	X	X	
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal	X	X	
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	MHRW	
Receiving water			
i. Type of dilution water. It salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	X	X	
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	yes	yes	
Salinity			
Temperature	yes	yes	
Ammonia			
Dissolved oxygen	yes	yes	
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic:

NOEC	90 %	95 %	%
IC_{25}	>100 %	>100 %	%
Control percent survival	98 %	98 %	%
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	Yes	Yes	
Was reference toxicant test within acceptable bounds?	Yes	Yes	
What date was reference toxicant test run (MM/DD/YYYY)?	09/25/2012	09/25/2012	
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

____Yes ✓ No If yes, describe: _____

_____

_____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results. See Attachment 3.

Date submitted: _____ (MM/DD/YYYY)

Summary of results: (see instructions)

_____

_____

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

____Yes ✓ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. _____

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: _____

Mailing Address: _____

_____

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

_____

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): _____

Raw material(s): _____

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____continuous or _____intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____continuous or _____intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ____Yes ____No

b. Categorical pretreatment standards ____Yes ____No

If subject to categorical pretreatment standards, which category and subcategory?

_____

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____Yes____No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ____Yes ___No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____Truck _____Rail _____Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____Yes (complete F.13 through F.15.) ____No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____Yes ____No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

____Continuous ____Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

a. All CSO discharge points.

b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).

c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

a. Locations of major sewer trunk lines, both combined and separate sanitary.

b. Locations of points where separate sanitary sewers feed into the combined sewer system.

c. Locations of in-line and off-line storage structures.

d. Locations of flow-regulating devices.

e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

a. Outfall number _____

b. Location _____
(City or town, if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Which of the following were monitored during the last year for this CSO?

____Rainfall ____CSO pollutant concentrations ____CSO frequency

____CSO flow volume ____Receiving water quality

f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

a. Give the number of CSO events in the last year.

_____ events (___ actual or ___ approx.)

b. Give the average duration per CSO event.

_____ hours (____ actual or ____ approx.)

c. Give the average volume per CSO event.

_____ million gallons (_____ actual or _____ approx.)

d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

G.5. Description of Receiving Waters.

a. Name of receiving water: _____

b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

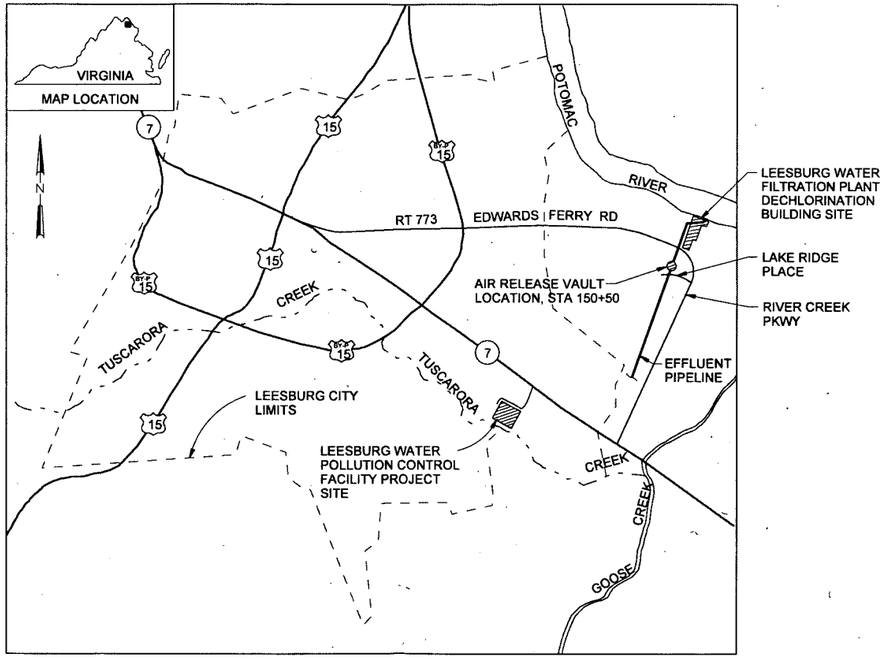
Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

_____

_____

END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

Attachment 1
Topographic Map



VICINITY MAP
NTS

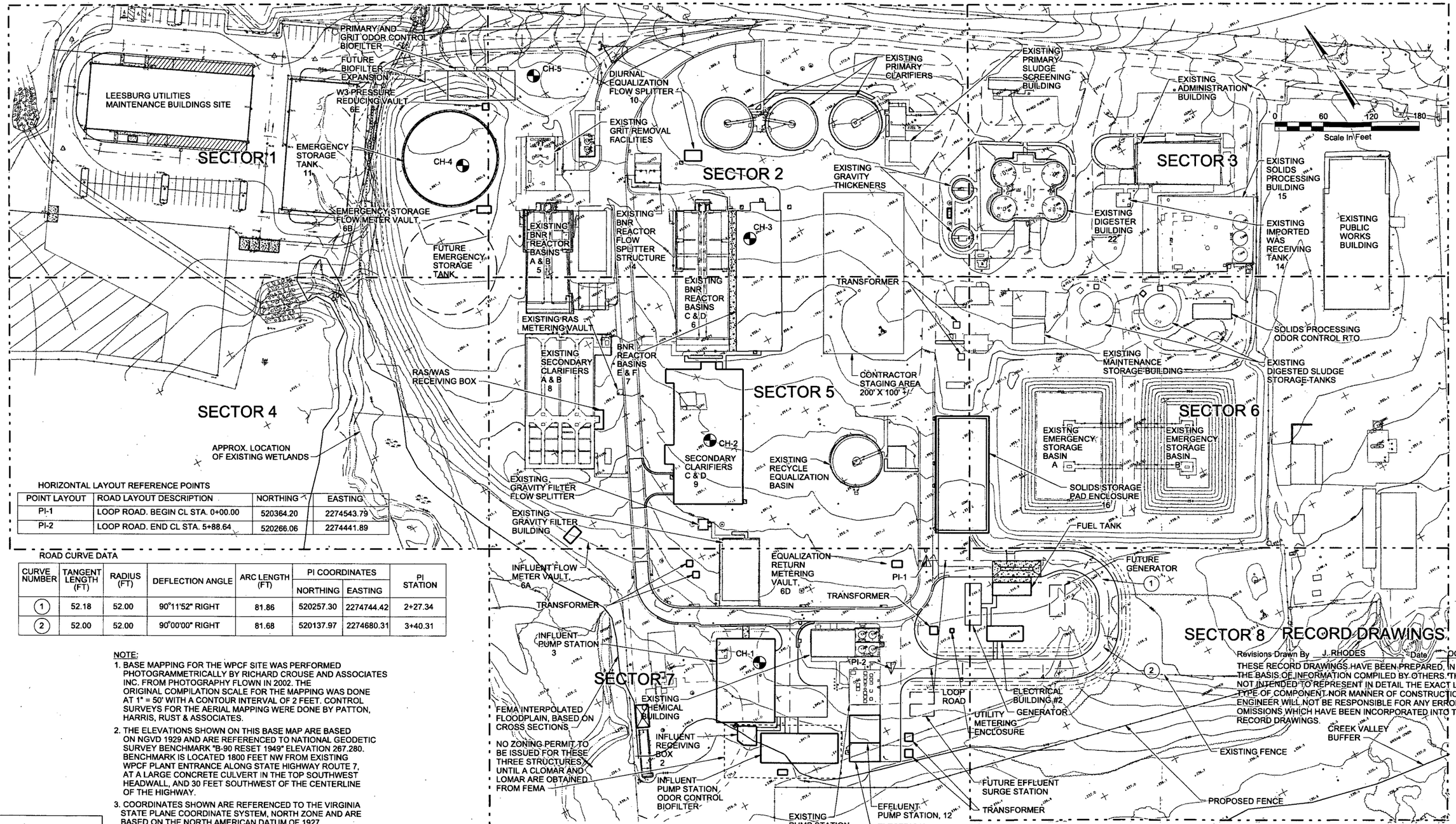
RECORD DRAWINGS

Revisions Drawn By S. KORCSMAROS Date OCT 2008

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.

DSGN D. BRANDAO				VERIFY SCALE	CH2MHILL
DR S. KORCSMAROS				BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST	LEESBURG WATER POLLUTION CONTROL FACILITY UPGRADE AND EXPANSION PROJECT 7.5
CHK T. GALLAGHER					GENERAL
APVD B. MATTHEISS	NO.	DATE	REVISION	BY APVD	VICINITY MAP

SHEET	2
DWG	1-G-1
DATE	JANUARY 2005



HORIZONTAL LAYOUT REFERENCE POINTS

POINT LAYOUT	ROAD LAYOUT DESCRIPTION	NORTHING	EASTING
PI-1	LOOP ROAD. BEGIN CL STA. 0+00.00	520364.20	2274543.79
PI-2	LOOP ROAD. END CL STA. 5+88.64	520266.06	2274441.89

ROAD CURVE DATA

CURVE NUMBER	TANGENT LENGTH (FT)	RADIUS (FT)	DEFLECTION ANGLE	ARC LENGTH (FT)	PI COORDINATES		PI STATION
					NORTHING	EASTING	
(1)	52.18	52.00	90°11'52" RIGHT	81.86	520257.30	2274744.42	2+27.34
(2)	52.00	52.00	90°00'00" RIGHT	81.68	520137.97	2274680.31	3+40.31

NOTE:

1. BASE MAPPING FOR THE WPCF SITE WAS PERFORMED PHOTOGRAMMETRICALLY BY RICHARD CROUSE AND ASSOCIATES INC. FROM PHOTOGRAPHY FLOWN IN 2002. THE ORIGINAL COMPILATION SCALE FOR THE MAPPING WAS DONE AT 1" = 50' WITH A CONTOUR INTERVAL OF 2 FEET. CONTROL SURVEYS FOR THE AERIAL MAPPING WERE DONE BY PATTON, HARRIS, RUST & ASSOCIATES.
2. THE ELEVATIONS SHOWN ON THIS BASE MAP ARE BASED ON NGVD 1929 AND ARE REFERENCED TO NATIONAL GEODETIC SURVEY BENCHMARK "B-90 RESET 1949" ELEVATION 267.280. BENCHMARK IS LOCATED 1800 FEET NW FROM EXISTING WPCF PLANT ENTRANCE ALONG STATE HIGHWAY ROUTE 7, AT A LARGE CONCRETE CULVERT IN THE TOP SOUTHWEST HEADWALL, AND 30 FEET SOUTHWEST OF THE CENTERLINE OF THE HIGHWAY.
3. COORDINATES SHOWN ARE REFERENCED TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM, NORTH ZONE AND ARE BASED ON THE NORTH AMERICAN DATUM OF 1927.
4. SEE SECTOR DRAWINGS TO LOCATE STRUCTURES ON THE SITE. STRUCTURES ARE LOCATED BY THE OUTSIDE CORNER OF THE STRUCTURE AT GRADE, UNO.

SITE PLAN

1"=60'

RECORD DRAWINGS

Revisions Drawn By J. RHODES Date OCT 2008

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DSGN	M. HUMOWIECKI				
DR	A. ZILBERMAN				
CHK	M. OSBORNE				
APVD	R. MATTHEISS	NO.	DATE	REVISION	BY APVD

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST

CH2MHILL

LEESBURG WATER POLLUTION CONTROL FACILITY
UPGRADE AND EXPANSION
PROJECT 7.5

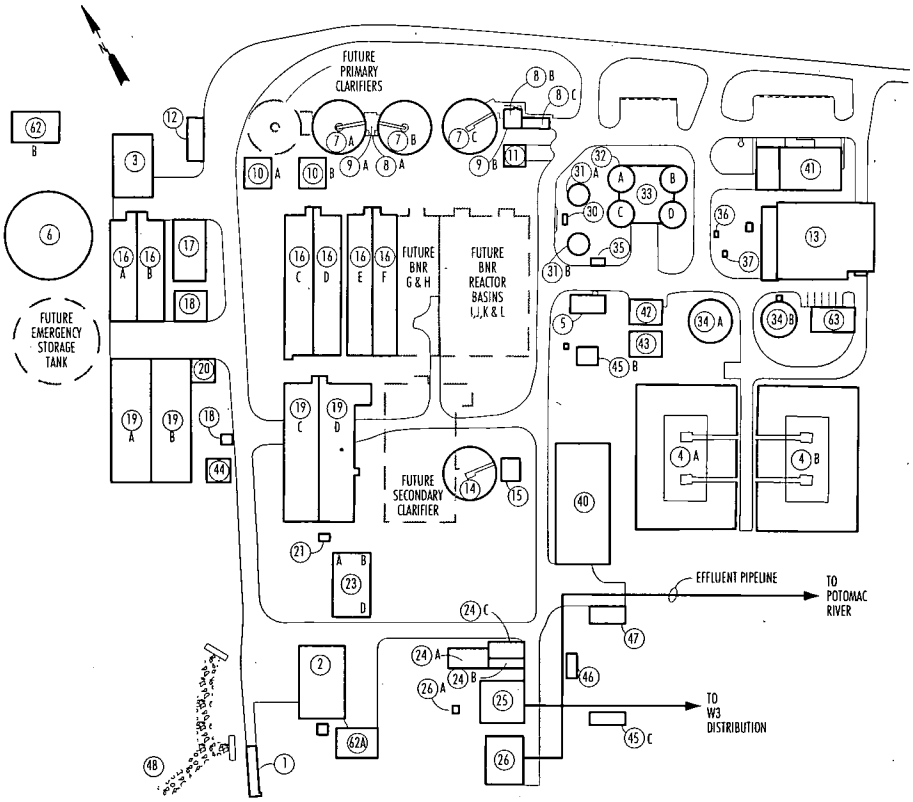
KEY PLAN

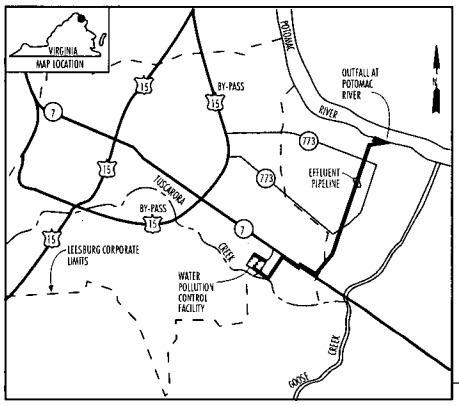
OVERALL SITE PLAN AND KEY PLAN

SHEET 18
DWG 1-K-1
DATE JANUARY 2005

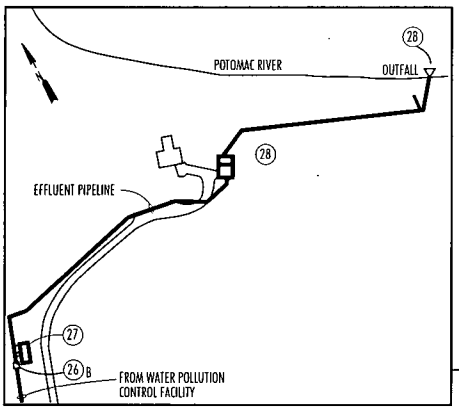
PRELIMINARY/FINAL DEVELOPMENT PLAN

Water Pollution Control Facility





Vicinity Map



Outfall at Potomac River

UNIT IDENTIFICATION

1. RECEIVING STATION
2. INFLUENT PUMPING STATION
3. PISTA GRIT BUILDING
4. EMERGENCY STORAGE BASINS A AND B
5. EMERGENCY STORAGE BASIN BLOWER BUILDING
6. EMERGENCY STORAGE TANK
7. PRIMARY CLARIFIERS A, B, AND C
8. PRIMARY SCUM PITS A AND B SCUM HANDLING STATION C
9. PRIMARY PUMP STATIONS A AND B

10A. BNR FLOW SPLITTER

10B. DIURNAL EQUALIZATION FLOW SPLITTER

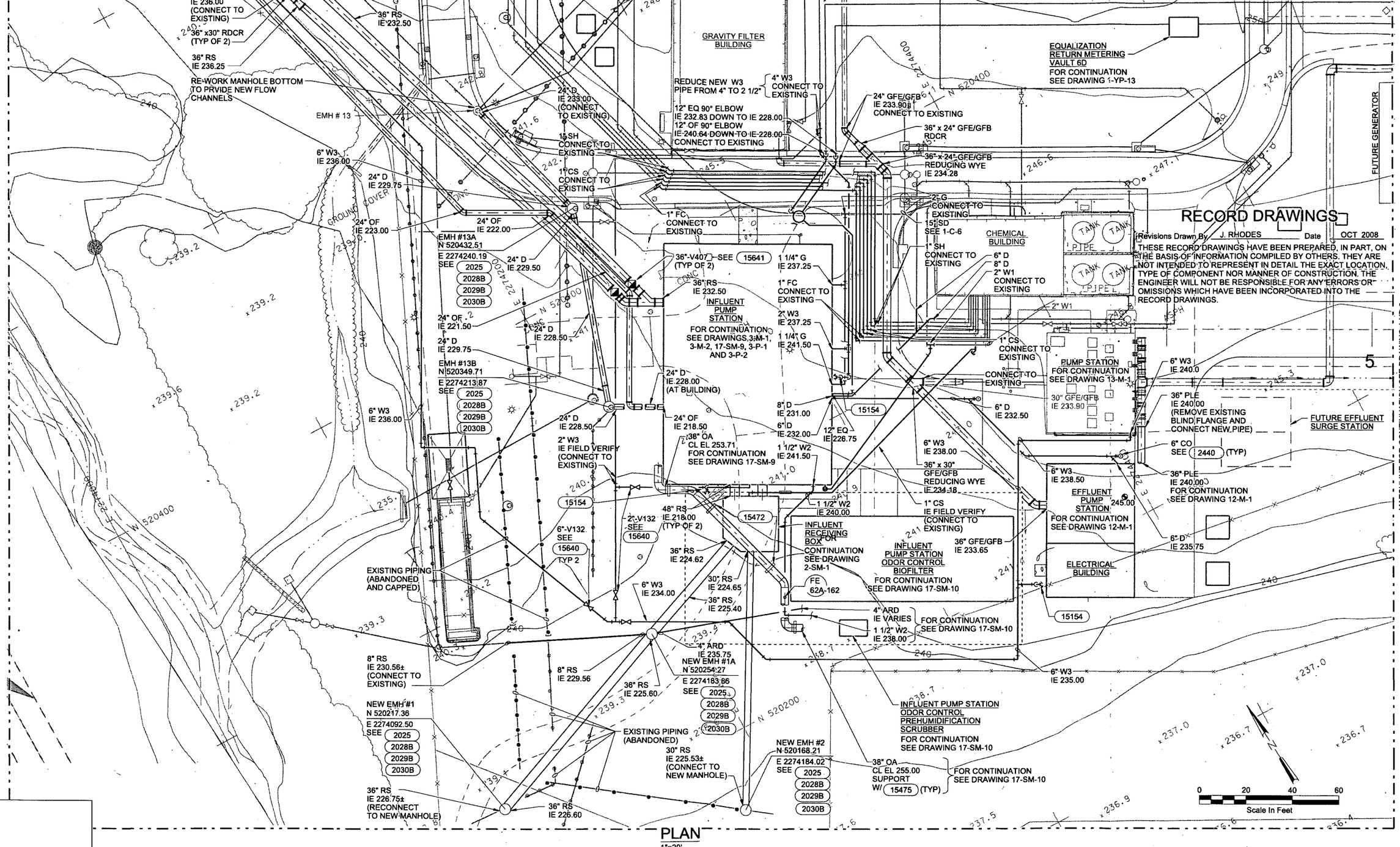
11. PRIMARY SCUM SCREEN BUILDING
12. METHANOL BUILDING
13. SOLIDS HANDLING BUILDING
14. RECYCLE EQUALIZATION BASIN
15. RECYCLE EQUALIZATION PUMP STATION
16. BIOREACTORS A, B, C, D, E, AND F
17. PROCESS BLOWER BUILDING
18. RAS/WAS PUMP STATION—METERING CHAMBER
19. SECONDARY CLARIFIERS A, B, C, AND D
20. SECONDARY SCUM PUMP STATION AND PIT
21. SAND FILTER FLOW SPLITTER
23. SAND FILTER BUILDING
24. CHEMICAL FEED BUILDING A
    FERRIC CHLORIDE CONTAINMENT STRUCTURE B
    SODIUM HYPOCHLORITE CONTAINMENT STRUCTURE C
25. W3 PUMPING STATION
26. EFFLUENT PS AND METER CHAMBERS A AND B
27. DECHLORINATION BUILDING AND
    SODIUM BISULFITE STRUCTURE
28. POTOMAC RIVER OUTFALL
30. GRAVITY THICKENER SPLITTER
31. GRAVITY THICKENERS A AND B
32. PRIMARY DIGESTERS A, B, C, AND D
33. DIGESTER CONTROL BUILDING
34. SLUDGE STORAGE TANKS A AND B
35. SLUDGE LOADING STATION
36. WASTE GAS CONTROL CHAMBER
37. WASTE GAS BURNER
40. COVERED STORAGE PAD
41. ADMINISTRATIVE BUILDING
42. MAINTENANCE SHOP
43. MAINTENANCE STORAGE BUILDING
44. GROUNDS MAINTENANCE BUILDING
45. ELECTRICAL SUBSTATION B AND C
46. GENERATOR SET
47. GENERATOR SET FUEL STORAGE TANK
48. STORMWATER CONTAINMENT BASIN AND OUTFALL

62A. INFLUENT PUMP STATION ODOR CONTROL BIOFILTER

62B. PRIMARY AND GRIT ODOR CONTROL BIOFILTER

63. ODOR CONTROL RTO

WB022008006WDC_sitemap2008_v5



RECORD DRAWINGS

(Revisions Drawn By J. RHODES Date OCT 2008

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PLAN
1"=20'

DSGN	A. ZILBERMAN
DR	A. ZILBERMAN
CHK	M. OSBORNE
APVD	

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST

CH2MHILL

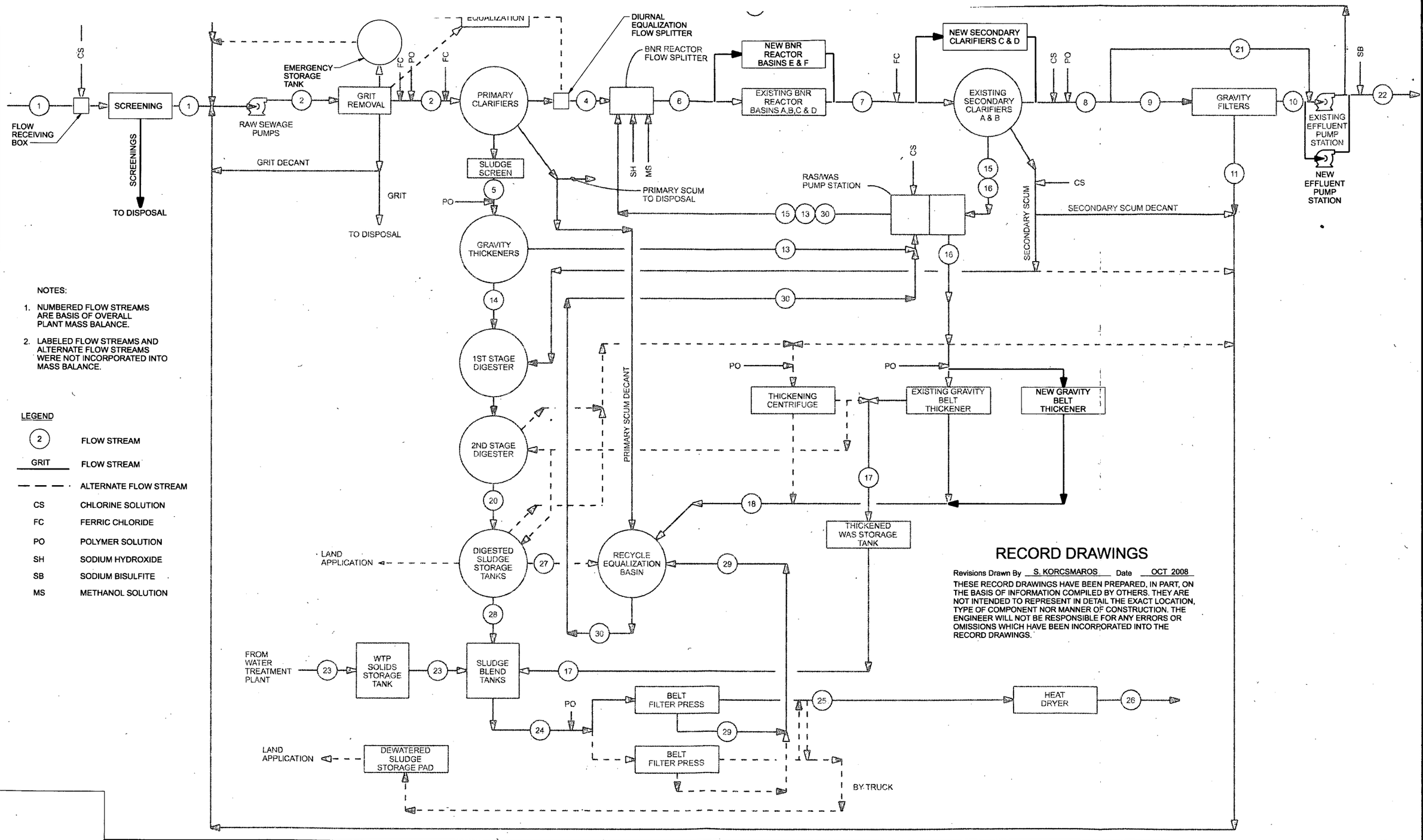
LEESBURG WATER POLLUTION CONTROL FACILITY
UPGRADE AND EXPANSION
PROJECT 7.5

YARD PIPING
YARD PIPING PLAN
SECTOR 7

SHEET	40
DWG	1-YP-7
DATE	JANUARY 2005

PRELIMINARY/FINAL DEVELOPMENT PLAN

Attachment 2
Process Flow Diagram and Mass Balance



NOTES:

1. NUMBERED FLOW STREAMS ARE BASIS OF OVERALL PLANT MASS BALANCE.
2. LABELED FLOW STREAMS AND ALTERNATE FLOW STREAMS WERE NOT INCORPORATED INTO MASS BALANCE.

LEGEND

(2)	FLOW STREAM
GRIT	FLOW STREAM
- - -	ALTERNATE FLOW STREAM
CS	CHLORINE SOLUTION
FC	FERRIC CHLORIDE
PO	POLYMER SOLUTION
SH	SODIUM HYDROXIDE
SB	SODIUM BISULFITE
MS	METHANOL SOLUTION

RECORD DRAWINGS

Revisions Drawn By S. KORCSMAROS Date OCT 2008

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DSGN	D. BRANDAO		
DR	S. KORCSMAROS		
CHK	T. GALLAGHER		
APVD	B. MATTHEISS		

NO.	DATE	REVISION	BY	APVD

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

CH2MHILL

LEESBURG WATER POLLUTION CONTROL FACILITY
UPGRADE AND EXPANSION
PROJECT 7.5

GENERAL
PROCESS FLOW DIAGRAM AND MASS BALANCE

SHEET 14
DWG 1-G-13
DATE JANUARY 2005

LEESBURG WPCF UPGRADE AND EXPANSION PROJECT 7.5 MGD - GENERAL MASS BALANCE

		ANNUAL AVERAGE					MAXIMUM MONTH				
		Flow	CBOD	CBOD	TSS	TSS	Flow	CBOD	CBOD	TSS	TSS
ID	Flow Stream Identification	Flow	Mass Loading	Concentration	Mass Loading	Concentration	Flow	Mass Loading	Concentration	Mass Loading	Concentration
	Main Process Streams	MGD	(lb/day)	(mg//L)	(lb/day)	(mg//L)	MGD	(lb/day)	(mg//L)	(lb/day)	(mg//L)
1	Raw Sewage	7.50	11,850	189	13,200	211	9.00	17,850	238	18,450	246
2	Primary Influent	8.88	11,902	161	13,447	181	11.08	17,905	194	18,697	202
4	Primary Effluent	7.90	6,472	98	3,362	51	9.71	9,996	123	4,674	58
6	BNR Reactor Basin Influent	9.00	7,779	104	5,993	80	11.20	12,148	130	8,399	90
7	Secondary Clarifier Influent	18.01	86,279	574	416,357	2,771	21.39	159,127	892	723,265	4,053
8	Secondary Effluent	8.88	140	1.89	592	8.0	11.07	184	1.99	739	8.00
9	Filter Influent	4.85	76	1.89	324	8.0	4.85	81	1.99	324	8.00
10	Filter Effluent	4.57	25	0.64	76	2.0	4.57	26	0.67	76	2.00
12	Plant Water	1.10					1.80				
21	Filter Bypass	4.03	63	1.89	269	8.0	6.22	103	1.99	415	8.00
22	Plant Effluent	7.50	142	2.28	345	5.5	8.99	218	2.90	492	6.55
	Solids Process Streams										
5	Primary Sludge	0.98			12,324	0.15%	1.37			17,143	0.15%
14	Thickened Primary Sludge	0.04			11,092	3%	0.06			15,428	3%
15	Return Activated Sludge	9.00			409,934	0.55%	10.19			713,871	0.84%
16	Waste Activated Sludge	0.13			5,840	0.55%	0.12			8,668	0.84%
17	Thickened WAS	0.02			5,548	3%	0.03			8,234	3%
20	Digester Effluent	0.04			5,512	1%	0.06			7,530	1%
24	Thickened + Digested Solids	0.07			11,061	2%	0.09			15,765	2%
25	Dewater Solids	0.005			9,955	25%	0.01			14,188	25%
26	Dried Solids	0.005			9,955	90%	0.01			14,188	90%
	Recycle Streams										
11	Filter Backwash	0.28	52	22	247	106	0.28	55	24	247	106
13	Gravity Thickener Overflow	0.94	1,094	139	1,232	157	1.31	1,774	163	1,714	157
18	GBT Filtrate	0.11	61	69	292	330	0.09	95	126	433	572
29	BFP Filtrate	0.06	152	296	1,106	2,148	0.09	282	386	1,576	2,154
30	Equalized Plant Recycle (18+29)	0.17	213	152	1,398	998	0.18	378	254	2,010	1,349
31	Recycle to BNR (18+29+13)	1.11	1,307	141	2,630	284	1.49	2,152	173	3,724	300

Assumptions:
1. Annual Average: 12°C, 20% anoxic, 13.5 day SRT, ferric addition to Primary Clarifiers (dosage = 1,600 lbs/day).
2. Maximum Month: 12°C, 20% anoxic, 13.5 day SRT, ferric addition to Primary Clarifiers (dosage = 2,000 lbs/day).
3. Flow stream identification numbers correspond to those shown on the Process Flow Schematic.
4. All plant water (1.1 mgd at annual average and 1.8 mgd at maximum month) goes back to the head of the plant for conservatism.
5. WAS thickening capture (BFP) of 95%.
6. Primary thickening capture (GT) of 90%.

RECORD DRAWINGS

Revisions Drawn By S. KORCSMAROS Date OCT 2008

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.

DSGN D. BRANDAO
DR S. KORCSMAROS
CHK T. GALLAGHER
APVD B. MATTHEISS

NO. | DATE | REVISION | BY | APVD

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

CH2MHILL

LEESBURG WATER POLLUTION CONTROL FACILITY
UPGRADE AND EXPANSION
PROJECT 7.5

GENERAL
MASS BALANCE

SHEET 15
DWG 1-G-14
DATE JANUARY 2005

Attachment 3
Summary of Submitted Biomonitoring Test Information

Leesburg Water Pollution Control Facility
VPDES No. VA0092282
Form 2A - Attachment 3

E.4 Summary of Submitted Biomonitoring Test Information

2012 Test (data included in Form 2A)
Submitted on 10/9/12

Outfall number	001
Collection dates	9/24/2012
Dates of testing	9/25/2012
Toxicity testing method	C. dubia EPA 1002.0
	P. promelas EPA 1000.0
Survival	> 100% for both

2011 Test
Submitted on 11/4/11

Outfall number	001
Collection dates	10/17/2011
Dates of testing	10/18/2011
Toxicity testing method	C. dubia EPA 1002.0
	P. promelas EPA 1000.0
Survival	> 100% for both

2010 Test
Submitted on 1/19/11

Outfall number	001
Collection dates	11/8/10 - 11/12/10
Dates of testing	11/9/10 - 11/17/10
Toxicity testing method	C. dubia EPA 1002.0
	P. promelas EPA 1000.0
Survival	> 100% for both

2009 Test
Submitted on 10/5/09

Outfall number	001
Collection dates	8/17/2009
Dates of testing	8/25/2009
Toxicity testing method	C. dubia EPA 1002.0
	P. promelas EPA 1000.0
Survival	> 100% for both

VPDES Sewage Sludge Permit Application Form

FACILITY NAME: Water Pollution Control Facility VPDES PERMIT NUMBER: VA0092282

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? _X_ Yes __ No

   Will this facility derive a material from sewage sludge? _X_ Yes __ No

   If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? _X_ Yes __ No

   Will sewage sludge from this facility be applied to the land? _X_ Yes __ No

   If you answered No to both questions above, skip Section C.

   If you answered Yes to either, answer the following three questions:

   a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   _X_ Yes __ No

   b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? _X_ Yes __ No

   c. Will sewage sludge from this facility be sent to another facility for treatment or blending? __ Yes _X_ No

   If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __ Yes _X_ No

   If Yes, complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.
   a. Facility name: Water Pollution Control Facility
   b. Contact person: Charles E. Rockholt
      Title: Utility Plant Manager, WPCD
      Phone: 703.737.7092
   c. Mailing address:
      Street or P.O. Box: 25 West Market Street
      City or Town: Leesburg State: VA Zip: 20176
   d. Facility location:
      Street or Route #: 1391 East Market Street
      County: Loudon County
      City or Town: Leesburg State: VA Zip: 20176
   e. Is this facility a Class I sludge management facility? X Yes __No
   f. Facility design flow rate: 7.5 mgd
   g. Total population served: 51,000
   h. Indicate the type of facility:
      X Publicly owned treatment works (POTW)
      __ Privately owned treatment works
      __ Federally owned treatment works
      __ Blending or treatment operation
      __ Surface disposal site
      __ Other (describe):

2. Applicant Information. If the applicant is different from the above, provide the following:
   a. Applicant name:
   b. Mailing address:
      Street or P.O. Box:
      City or Town: State: Zip:
   c. Contact person:
      Title:
      Phone: ( )
   d. Is the applicant the owner or operator (or both) of this facility?
      X owner X operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
      _____ facility X applicant

3. Permit Information.
   a. Facility's VPDES permit number (if applicable): VA0092282
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number:	Type of Permit:
VAN010061	Nutrients
VAR051427	Industrial SW

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? __Yes X No If yes, describe:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility: (Attachment 1)
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. (Attachment 2)

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? __Yes _X_No
   If yes, provide the following for each contractor (attach additional pages if necessary).
   Name:
   Mailing address:
   Street or P.O. Box:
   City or Town: _____ State: _____ Zip:
   Phone: ( )
   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

   If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. (Attachment 3)

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

   _X__Section A (General Information)
   _X__Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
   ____Section C (Land Application of Bulk Sewage Sludge)
   ____Section D (Surface Disposal)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title John A. Wells, Town Manager

Signature John A. Wells 3/19/13 Date Signed

Telephone number 703-777-2420

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
   Total dry metric tons per 365-day period generated at your facility: 900 dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: Kenneth B. Rollins Water Treatment Plant
   b. Contact Person: Larry Taylor
      Title: Utility Manager, Water Division
      Phone (703) 737-7110
   c. Mailing address:
      Street or P.O. Box: 25 West Market Street
      City or Town: Leesburg State: VA Zip: 20176
   d. Facility Address: 43234 Edwards Ferry Road
      (not P.O. Box) Town of Leesburg, VA 20176
   e. Total dry metric tons per 365-day period received from this facility: 300 dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: gravity thickener (8% solids) and storage prior to sending it to the WPCF.

3. Treatment Provided at Your Facility.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      X Class A ___Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: thermal heat drying

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      ___ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___Option 7 (75 percent solids with no unstabilized solids)
      X Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: thermal heat drying.
   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: the solids are screened, thickened, digested, and dewatered prior to thermal heat drying and conversion into dry pellets.

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
   (If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: 900 dry metric tons
   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
      X Yes ___No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: 900 dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land. (Attachment 4)

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name:

b. Facility contact:
Title:
Phone: ( )

c. Mailing address:
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:
dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
_____	
_____	

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? __Yes __No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
__Class A __Class B __Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? __Yes __No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
__ Option 1 (Minimum 38 percent reduction in volatile solids)
__ Option 2 (Anaerobic process, with bench-scale demonstration)
__ Option 3 (Aerobic process, with bench-scale demonstration)
__ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
__ Option 5 (Aerobic processes plus raised temperature)
__ Option 6 (Raise pH to 12 and retain at 11.5)
__ Option 7 (75 percent solids with no unstabilized solids)
__ Option 8 (90 percent solids with unstabilized solids)
__ None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge:

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
__Yes __No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? __Yes __No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ___ Yes ___ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:_____dry metric tons

b. Do you identify all land application sites in Section C of this application? __Yes __No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? __Yes __No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
__Yes __No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: __Site Owner __Site operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number:	Type of Permit:
_____	
_____	

9. Incineration.

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
___Yes ___No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Incinerator Owner ___Incinerator Operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:
Permit Number: Type of Permit:
_____
_____

10. Disposal in a Municipal Solid Waste Landfill.
(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name:

b. Contact person:
Title:
Phone: ( )
Contact is: ___Landfill Owner ___Landfill Operator

c. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. Landfill location.
Street or Route #:
County:
City or Town: _____ State:_____ Zip:

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
_____ dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: Type of Permit:
_____
_____

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
___Yes ___No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? ___Yes ___No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? ___ Yes ___ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:
The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or
The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or
You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).
Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.
   a. Site name or number:
   b. Site location (Complete i and ii)
      i. Street or Route#:
         County:
         City or Town: _____ State: _____ Zip:
      ii. Latitude:_____ Longitude:
         Method of latitude/longitude determination
         _____ USGS map _____ Filed survey _____ Other
   c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.
   a. Are you the owner of this land application site? __Yes __No
   b. If no, provide the following information about the owner:
      Name:
      Street or P.O. Box:
      City or Town: _____ State:_____ Zip:
      Phone: ( )

3. Applier Information:
   a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? __Yes __No
   b. If no, provide the following information for the person who applies the sewage sludge:
      Name:
      Street or P.O. Box:
      City or Town:_____ State:_____ Zip:
      Phone: ( )
   c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:
      Permit Number: Type of Permit:
      _____
      _____

4. Site Type. Identify the type of land application site from among the following:
   __Agricultural land __Reclamation site __Forest
   __Public contact site __Other. Describe

5. Vector Attraction Reduction.
   Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
   ___Yes ___No If yes, answer a and b.
   a. Indicate which vector attraction reduction option is met:
      __ Option 9 (Injection below land surface)
      __ Option 10 (Incorporation into soil within 6 hours)
   b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

6. Cumulative Loadings and Remaining Allotments.
   (Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? __Yes __No
If no, sewage sludge subject to the CPLRs may not be applied to this site.
If yes, provide the following information:
Permitting authority:
Contact person:
Phone:( )

b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? __Yes __No If no, skip the rest of Question 6. If yes, answer questions c - e.

c. Site size, in hectares: _____ (one hectare = 2.471 acres)

d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.
Facility name:
Facility contact:
Title:
Phone: ( )
Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	Cumulative loading	Allotment remaining
Arsenic	_____	
Cadmium	_____	
Copper	_____	
Lead	_____	
Mercury	_____	
Nickel	_____	
Selenium	_____	
Zinc	_____	

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

PCBs (mg/kg)
pH (S. U.)
Percent Solids (%)
Ammonium Nitrogen (mg/kg)
Nitrate Nitrogen (mg/kg)
Total Kjeldahl Nitrogen (mg/kg)
Total Phosphorus (mg/kg)
Total Potassium (mg/kg)
Alkalinity as $CaCO_3$* (mg/kg)

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent $CaCO_3$.

8. Storage Requirements.

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
   1) Water wells, abandoned or operating
   2) Surface waters
   3) Springs
   4) Public water supply(s)
   5) Sinkholes
   6) Underground and/or surface mines
   7) Mine pool (or other) surface water discharge points
   8) Mining spoil piles and mine dumps
   9) Quarry(s)
   10) Sand and gravel pits
   11) Gas and oil wells
   12) Diversion ditch(s)
   13) Agricultural drainage ditch(s)
   14) Occupied dwellings, including industrial and commercial establishments
   15) Landfills or dumps
   16) Other unlined impoundments
   17) Septic tanks and drainfields
   18) Injection wells
   19) Rock outcrops

b. A topographic map of sufficient detail to clearly show the following information:
   1) Maximum and minimum percent slopes
   2) Depressions on the site that may collect water
   3) Drainageways that may attribute to rainfall run-on to or runoff from this site
   4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding

c. Data and specifications for the storage facility lining material.

d. Plan and cross-sectional views of the storage facility.

e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR-sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.

10. Landowner Agreement Forms. Provide a properly completed **Land Application Agreement – Biosolids** Form and necessary attachments (attached at end of VPDES Sewage Sludge Permit Application Form) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.

11. Ground Water Monitoring.

Are any ground water monitoring data available for this land application site? __Yes __No

If yes, submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

a. Provide a general location map for each county which clearly indicates the location of all the land application

sites.

b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.

c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061
TEL: (804)693-6694

Provide a copy of the notification letter with this application form.

d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)
Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

1) Soil symbol
2) Soil series, textural phase and slope range
3) Depth to seasonal high water table
4) Depth to bedrock
5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

1). Soil symbol
2). Soil series, textural phase and slope range
3). Depth to seasonal high water table
4). Depth to bedrock
5). Estimated soil productivity group (for the proposed crop rotation)

f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)
Soil pH (std. units)
Cation Exchange Capacity (meq/100g)
Total Nitrogen (ppm)
Organic Nitrogen (ppm)
Ammonia Nitrogen (ppm)
Nitrate Nitrogen (ppm)
Available Phosphorus (ppm)
Exchangeable Potassium (mg/100g)
Exchangeable Sodium (mg/100g)
Exchangeable Calcium (mg/100g)
Exchangeable Magnesium (mg/100g)
Arsenic (ppm)
Cadmium (ppm)
Copper (ppm)
Lead (ppm)
Mercury (ppm)
Molybdenum (ppm)
Nickel (ppm)
Selenium (ppm)
Zinc (ppm)
Manganese (ppm)
Particle Size Analysis or
USDA Textural Estimate (%)

g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.

h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.
   a. Unit name or number:
   b. Unit location
      i. Street or Route#:
      County:
      City or Town: _____ State: _____ Zip:
      ii. Latitude:_____ Longitude:
      Method of latitude/longitude determination
      _____ USGS map _____ Filed survey _____ Other
   c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
   d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____dry metric tons.
   e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons.
   f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7}cm/sec? ___Yes ___No If yes, describe the liner or attach a description.

   g. Does the active sewage sludge unit have a leachate collection system? ___Yes ___No
   If yes, describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

   h. If you answered no to either f or g, answer the following:
   Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ___Yes ___No If yes, provide the actual distance in meters:
   i. Remaining capacity of active sewage sludge unit, in dry metric tons:_____ dry metric tons
   Anticipated closure date for active sewage sludge unit, if known:_____ (MM/DD/YYYY)
   Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.
   Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? ___Yes ___No
   If yes, provide the following information for each such facility, attach additional sheets as necessary.
   a. Facility name:
   b. Facility contact:
   Title:
   Phone: ( )
   c. Mailing address.
   Street or P.O. Box:
   City or Town:_____ State:_____ Zip:
   d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:

Permit Number:	Type of Permit:

   e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
   ___Class A ___Class B ___Neither or unknown
   f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

   g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?

___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
___ Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None or unknown

h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge:

i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above:

3. Vector Attraction Reduction.

a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?
___ Option 9 (Injection below land surface)
___ Option 10 (Incorporation into soil within 6 hours)
___ Option 11 (Covering active sewage sludge unit daily)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

4. Ground Water Monitoring.

a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ___Yes ___No
If yes, provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

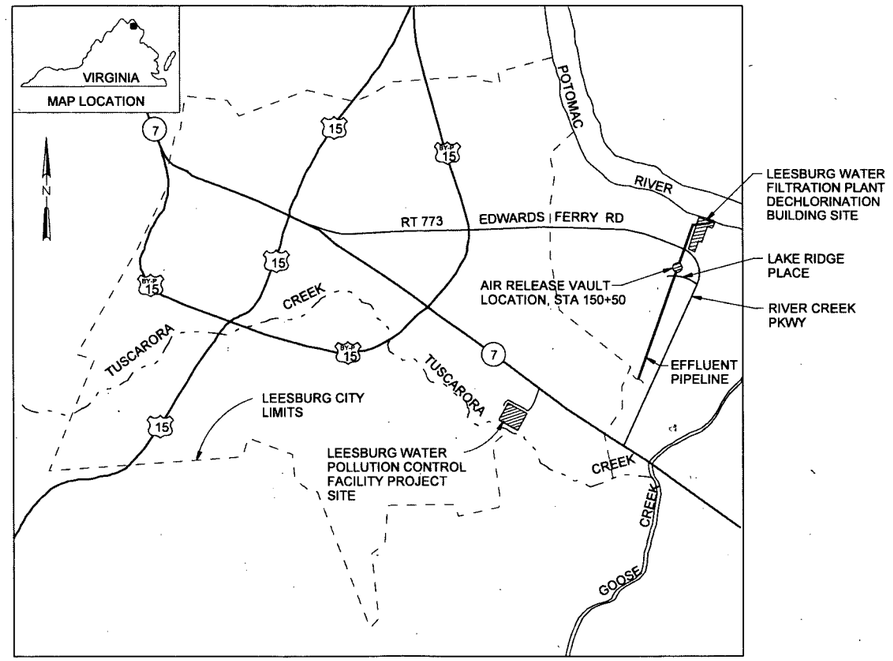
b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
___Yes ___No If yes, submit a copy of the ground water monitoring program with this application.

c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? ___Yes ___No
If yes, submit a copy of the certification with this application.

5. Site-Specific Limits.

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
___Yes ___No If yes, submit information to support the request for site-specific pollutant limits with this application.

Attachment 1
Topographic Map



VICINITY MAP
NTS

RECORD DRAWINGS

Revisions Drawn By S. KORCSMAROS Date OCT 2008

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.

DSGN D. BRANDAO					VERIFY SCALE
DR S. KORCSMAROS					BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY
CHK T. GALLAGHER					
APVD B. MATTHEISS	NO.	DATE	REVISION	BY	APVD

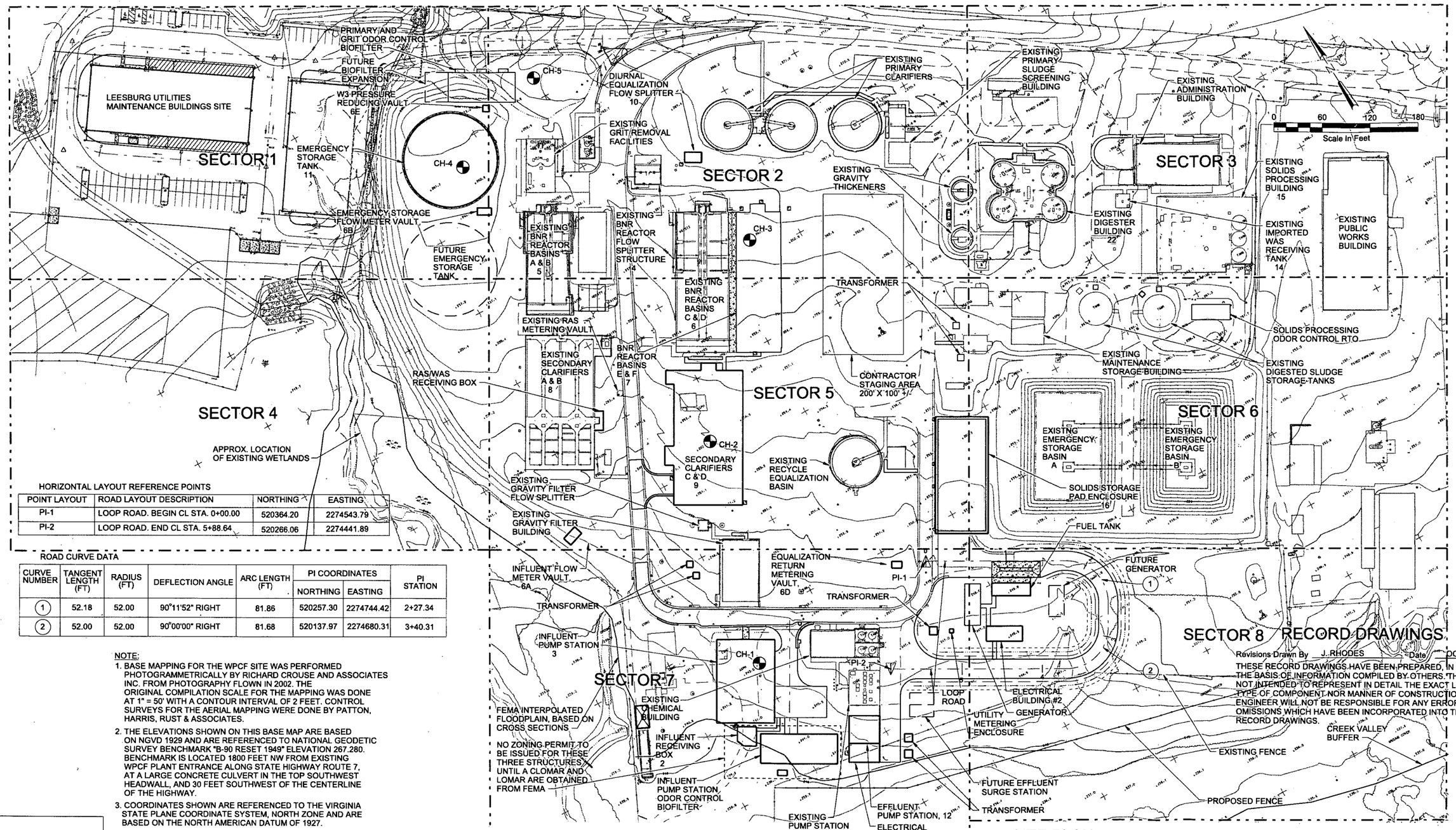
CH2MHILL

LEESBURG WATER POLLUTION CONTROL FACILITY
UPGRADE AND EXPANSION
PROJECT 7.5

GENERAL

VICINITY MAP

SHEET 2
DWG 1-G-1
DATE JANUARY 2005



HORIZONTAL LAYOUT REFERENCE POINTS

POINT LAYOUT	ROAD LAYOUT DESCRIPTION	NORTHING	EASTING
PI-1	LOOP ROAD. BEGIN CL STA. 0+00.00	520364.20	2274543.79
PI-2	LOOP ROAD. END CL STA. 5+88.64	520266.06	2274441.89

ROAD CURVE DATA

CURVE NUMBER	TANGENT LENGTH (FT)	RADIUS (FT)	DEFLECTION ANGLE	ARC LENGTH (FT)	PI COORDINATES		PI STATION
					NORTHING	EASTING	
(1)	52.18	52.00	90°11'52" RIGHT	81.86	520257.30	2274744.42	2+27.34
(2)	52.00	52.00	90°00'00" RIGHT	81.68	520137.97	2274680.31	3+40.31

NOTE:

1. BASE MAPPING FOR THE WPCF SITE WAS PERFORMED PHOTOGRAMMETRICALLY BY RICHARD CROUSE AND ASSOCIATES INC. FROM PHOTOGRAPHY FLOWN IN 2002. THE ORIGINAL COMPILATION SCALE FOR THE MAPPING WAS DONE AT 1" = 50' WITH A CONTOUR INTERVAL OF 2 FEET. CONTROL SURVEYS FOR THE AERIAL MAPPING WERE DONE BY PATTON, HARRIS, RUST & ASSOCIATES.
2. THE ELEVATIONS SHOWN ON THIS BASE MAP ARE BASED ON NGVD 1929 AND ARE REFERENCED TO NATIONAL GEODETIC SURVEY BENCHMARK "B-90 RESET 1949" ELEVATION 267.280. BENCHMARK IS LOCATED 1800 FEET NW FROM EXISTING WPCF PLANT ENTRANCE ALONG STATE HIGHWAY ROUTE 7, AT A LARGE CONCRETE CULVERT IN THE TOP SOUTHWEST HEADWALL, AND 30 FEET SOUTHWEST OF THE CENTERLINE OF THE HIGHWAY.
3. COORDINATES SHOWN ARE REFERENCED TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM, NORTH ZONE AND ARE BASED ON THE NORTH AMERICAN DATUM OF 1927.
4. SEE SECTOR DRAWINGS TO LOCATE STRUCTURES ON THE SITE. STRUCTURES ARE LOCATED BY THE OUTSIDE CORNER OF THE STRUCTURE AT GRADE, UNO.

Revisions Drawn By J. RHODES Date OCT 2008

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.

SITE PLAN

1"=60'

DSGN	M. HUMOWIECKI
DR	A. ZILBERMAN
CHK	M. OSBORNE
APVD	

NO.	DATE	REVISION

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALE ACCORDINGLY

CH2MHILL

LEESBURG WATER POLLUTION CONTROL FACILITY UPGRADE AND EXPANSION PROJECT 7.5

KEY PLAN

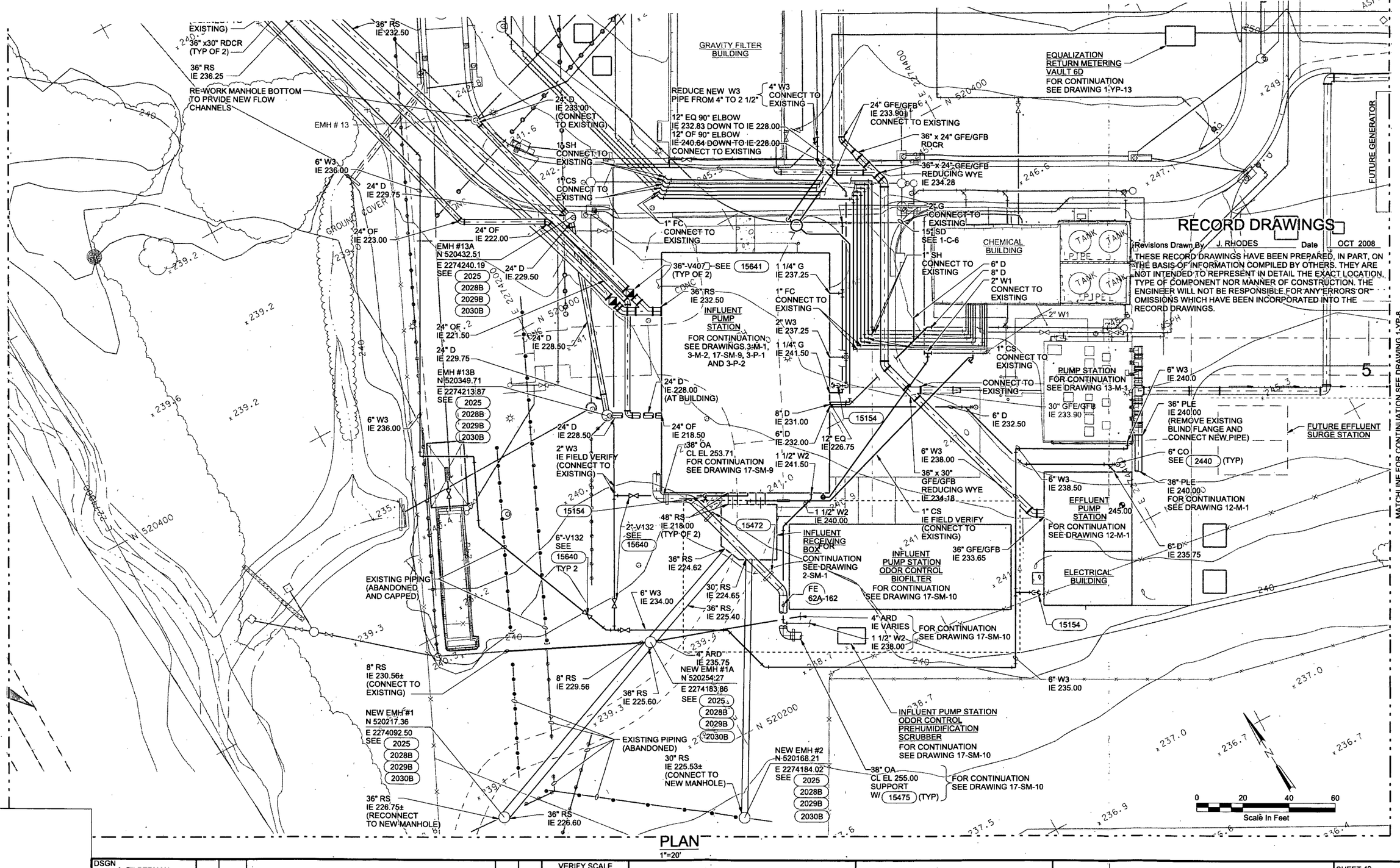
OVERALL SITE PLAN AND KEY PLAN

SHEET 18

DWG 1-K-1

DATE JANUARY 2005

PRELIMINARY/FINAL DEVELOPMENT PLAN

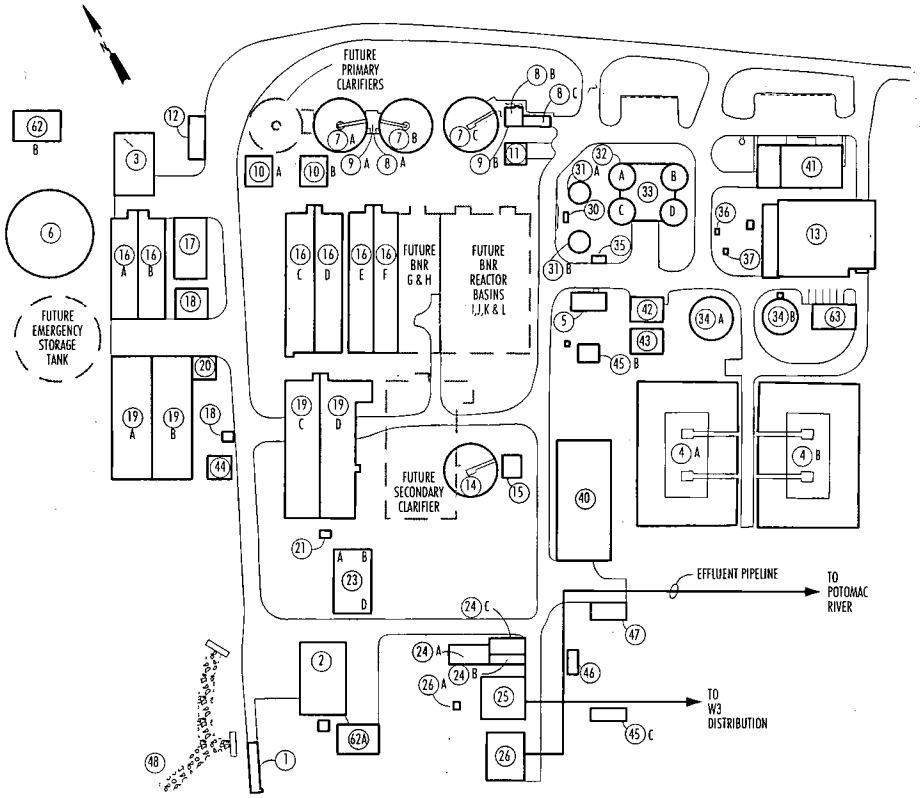


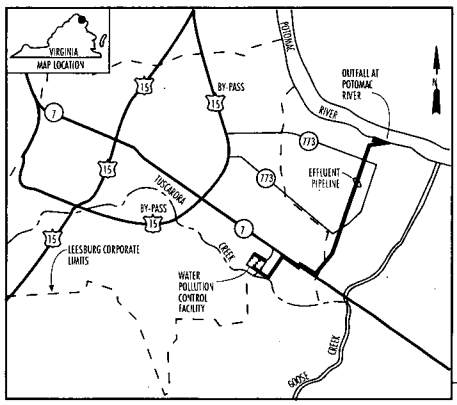
PLAN
1"=20'

DSGN A. ZILBERMAN					VERIFY SCALE	CH2MHILL	LEESBURG WATER POLLUTION CONTROL FACILITY UPGRADE AND EXPANSION PROJECT 7.5
DR A. ZILBERMAN					BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"		YARD PIPING
CHK M. OSBORNE					IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		YARD PIPING PLAN SECTOR 7
APVD B. MATTHEISS	NO.	DATE	REVISION	BY	APVD		SHEET 40 DWG 1-YP-7 DATE JANUARY 2005

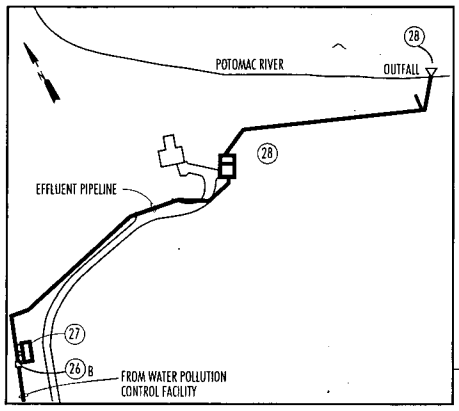
PRELIMINARY/FINAL DEVELOPMENT PLAN

Water Pollution Control Facility





Vicinity Map



Outfall at Potomac River

UNIT IDENTIFICATION

1. RECEIVING STATION
2. INFLUENT PUMPING STATION
3. PISTA GRIT BUILDING
4. EMERGENCY STORAGE BASINS A AND B
5. EMERGENCY STORAGE BASIN BLOWER BUILDING
6. EMERGENCY STORAGE TANK
7. PRIMARY CLARIFIERS A, B, AND C
8. PRIMARY SCUM PITS A AND B SCUM HANDLING STATION C
9. PRIMARY PUMP STATIONS A AND B

10A. BNR FLOW SPLITTER

10B. DIURNAL EQUALIZATION FLOW SPLITTER

11. PRIMARY SCUM SCREEN BUILDING
12. METHANOL BUILDING
13. SOLIDS HANDLING BUILDING
14. RECYCLE EQUALIZATION BASIN
15. RECYCLE EQUALIZATION PUMP STATION
16. BIOREACTORS A, B, C, D, E, AND F
17. PROCESS BLOWER BUILDING
18. RAS/WAS PUMP STATION—METERING CHAMBER
19. SECONDARY CLARIFIERS A, B, C, AND D
20. SECONDARY SCUM PUMP STATION AND PIT
21. SAND FILTER FLOW SPLITTER
23. SAND FILTER BUILDING
24. CHEMICAL FEED BUILDING A
    FERRIC CHLORIDE CONTAINMENT STRUCTURE B
    SODIUM HYPOCHLORITE CONTAINMENT STRUCTURE C
25. W3 PUMPING STATION
26. EFFLUENT PS AND METER CHAMBERS A AND B
27. DECHLORINATION BUILDING AND
    SODIUM BISULFITE STRUCTURE
28. POTOMAC RIVER OUTFALL
30. GRAVITY THICKENER SPLITTER
31. GRAVITY THICKENERS A AND B
32. PRIMARY DIGESTERS A, B, C, AND D
33. DIGESTER CONTROL BUILDING
34. SLUDGE STORAGE TANKS A AND B
35. SLUDGE LOADING STATION
36. WASTE GAS CONTROL CHAMBER
37. WASTE GAS BURNER
40. COVERED STORAGE PAD
41. ADMINISTRATIVE BUILDING
42. MAINTENANCE SHOP
43. MAINTENANCE STORAGE BUILDING
44. GROUNDS MAINTENANCE BUILDING
45. ELECTRICAL SUBSTATION B AND C
46. GENERATOR SET
47. GENERATOR SET FUEL STORAGE TANK
48. STORMWATER CONTAINMENT BASIN AND OUTFALL

62A. INFLUENT PUMP STATION ODOR CONTROL BIOFILTER

62B. PRIMARY AND GRIT ODOR CONTROL BIOFILTER

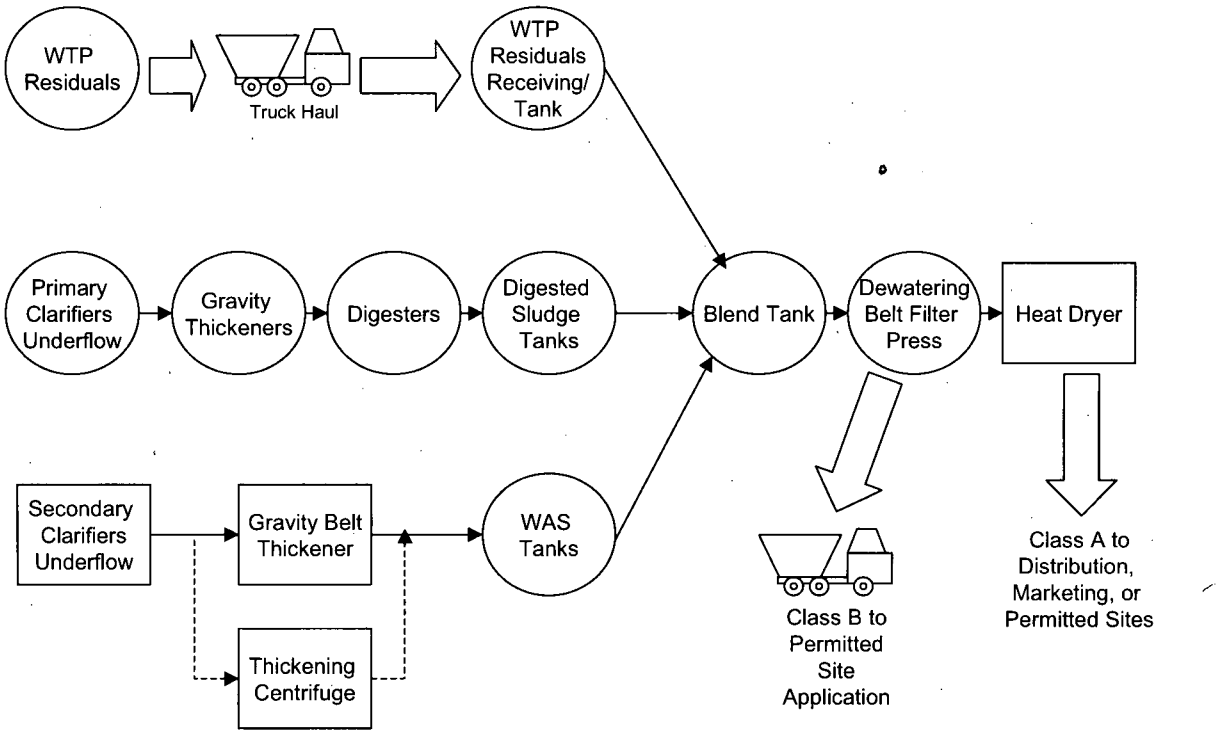
63. ODOR CONTROL RTO

WB022008006WDC_sitemap2008_v5

Attachment 2
Solids Process Narrative

FACILITY NAME: Water Pollution Control Facility
VPDES Permit Number: VA0092282

Schematic of the Solids Handling Process at the Water Pollution Control Facility



The WPCF solids processing system begins by separately handling three solids streams: raw primary sludge, WAS, and WTP residuals.

Raw primary sludge withdrawn from primary clarifiers is pumped into the sludge screen to two parallel gravity thickeners with cationic polymer addition capabilities. The thickened sludge is then conveyed to one of two parallel trains of anaerobic digesters, with each train consisting of a first stage and a second stage primary digester (both stages are heated and mixed). Digested primary biosolids is pumped to one of two parallel 0.35 MG digested-sludge storage tanks (DSST) for gravity thickening and storage and then pumped into blending tanks.

Waste activated sludge (WAS) from the biological treatment process is thickened on the gravity belt thickener. Thickened WAS is stored in a new storage tank and then pumped into blending tanks. The thickening centrifuge serves as a backup for the gravity belt thickener. It can also be used as a recuperative thickener for the digested biosolids.

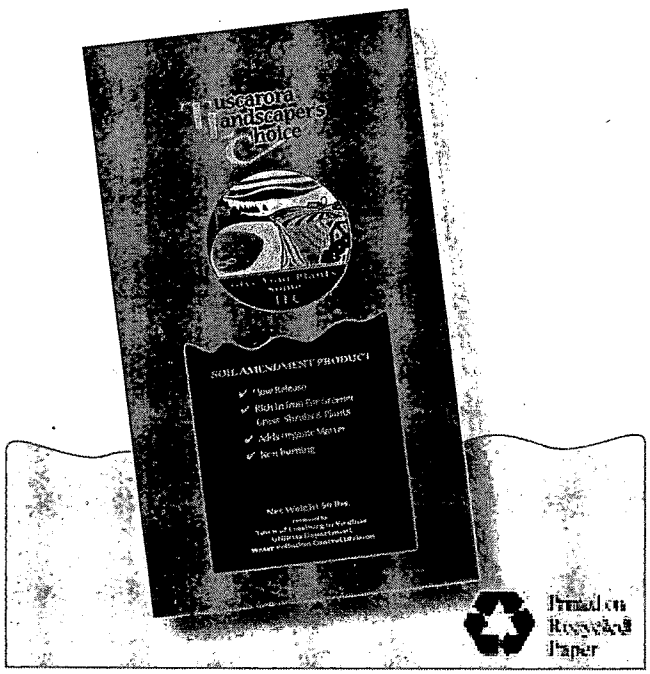
WTP residuals are thickened at the WTP and then trucked and unloaded at the WPCF's WTP residuals receiving/storage tank. The WTP residuals are then pumped into one of the blending tanks.

The three process streams described above are blended into one of the two blending tanks. The blended streams are then dewatered using a belt filter press and heat dried to a solids content of about 94 percent. Polymer is provided for thickening and dewatering. Dried pellets stored in product silos are picked up at the WPCF and utilized by contracted parties.

Give your plants a little TLC...

Tuscarora Landscaper's Choice

- ✔ Slow Release
- ✔ Rich in Iron for Greener Grass
- ✔ Adds Organic Matter
- ✔ Non-burning



Water Pollution Control Facility
1391 East Market Street
Leesburg, Virginia 20176

The Town of Leesburg in Virginia

INTRODUCES...

Tuscarora Landscaper's Choice

Soil Amendment Product

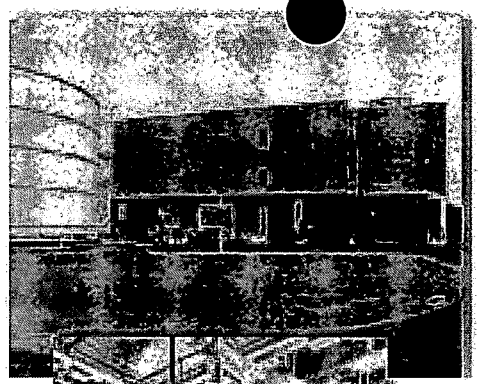
Tuscarora Landscaper's Choice is an organic by-product converted into a valuable all-natural product. It is an excellent soil amendment for lawns, trees, shrubs, and flowers. It provides both a valuable source of nutrients that are essential to plant growth and organic matter that enhances soil structure and quality. Tuscarora Landscaper's Choice can be applied through any spreader used for granular material. The use of Tuscarora Landscaper's Choice soil amendment will support the ongoing efforts in the protection, restoration, and preservation of the Potomac River and Chesapeake Bay watersheds.

The Town of Leesburg's Water Pollution Control Facility is now operating and producing an "Exceptional Quality" biosolids product as defined by the Virginia Department of Health. Manufacturing is performed in an approved and permitted biosolids-processing facility meeting criteria for Class I treatment, EPA Class A pathogen control, and EPA contaminant levels. These stabilized solids are screened, thickened, digested, and dewatered prior to drying and conversion into dry pellets. The final product is a soil amendment rated 6-3-0 and available in 25- or 50-pound bags or in bulk form.

Naturally Occurring Nutrient Levels

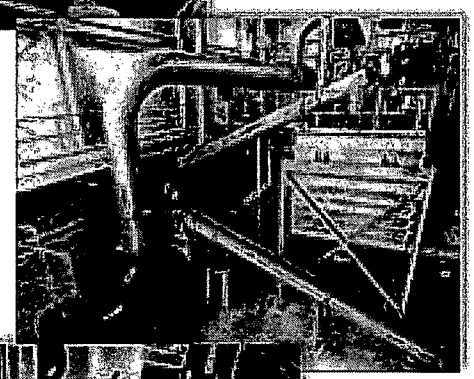
Total Nitrogen (N)	6.00%
1% water soluble organic nitrogen	
5% water insoluble nitrogen	
Available Phosphate (P_2O_5)	6.00%
Phosphorus (P)	3.00%
Calcium (Ca)	2.00%
Iron (Fe)	1.00%
Sulfur (S)	0.75%
Potassium (K)	0.50%
Magnesium (Mg)	0.40%
Sodium (Na)	0.05%
Zinc (Zn)	0.02%
Manganese (Mn)	0.01%

Application Information: 2-1/2 cups of Tuscarora Landscaper's Choice equals 1 lb. A large coffee can (approximately 2-1/2 lb. size) holds 5 lbs. of product. The bulk density is approximately 45 lbs. per cubic foot. The pellets are approximately 1-2 mm in diameter (0.040 – 0.080 inches).

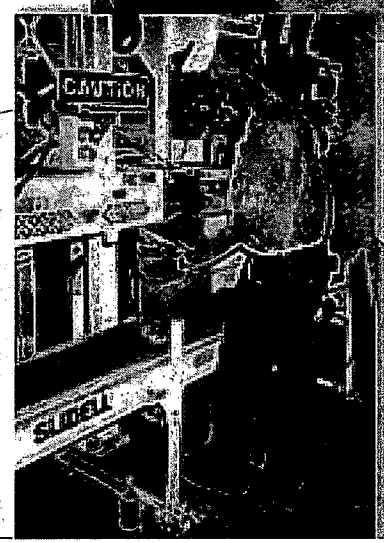


Biosolids processing facility where thickening, dewatering, drying, and bagging take place.

Belt filter press dewaters solids after thickening.



Heart of biosolids production is drying and pelletizing.



Staff bagging biosolids pellets.

Recommended Uses:

Established Lawns

For most lawns in the Mid-Atlantic area using cool-season grasses (fescue, bluegrass, ryegrass), three applications per year are recommended (spring, late summer, fall). Apply at a rate of 50 lbs. per 3,000 sq. ft.

New Lawns

Apply to soil at a rate of 50 lbs. per 1,500 sq. ft. before seeding. Cover the entire area and rake into the top 2 inches of soil.

Trees and Shrubs

Single Plantings: Use 5 lbs. of product for each inch of tree trunk diameter measured 4 ft. from the ground, or 2 cups of product per shrub.

New Shrub Beds: Prior to planting, apply 5 lbs. of product per 100 sq. ft. to the shrub bed and mix it into the soil.

Established Shrubs: Apply 1 to 2 cups of product around the base of shrubs and mix it into the soil. Best results are obtained in the spring.

Flowers and Vegetables

Annuals: Uniformly apply 3 lbs. of product per 100 sq. ft. of the seed bed prior to planting and work into the soil. Reapply when flower buds form with 2 lbs. per 100 sq. ft.

Perennials: Apply 2 lbs. of product per 100 sq. ft. in spring and again after blooming to strengthen plants for the following season.

Vegetables: Apply 5 lbs. per 100 sq. ft. prior to rototilling your garden.

Tuscarora Landscaper's Choice is an organic biosolids product meeting the U.S. Environmental Protection Agencies "Exceptional Quality" standards for beneficial use. Apply this product in accordance with label directions. Do not apply in or near any public or private water supplies including wells, streams, or lakes. Do not apply to flooded or frozen land. Store unused product away from children and pets in a cool, dry area.

If you have questions regarding this product, please call the Leesburg Water Pollution Control Facility at 703-737-7100.

Attachment 3
Pollutant Concentrations

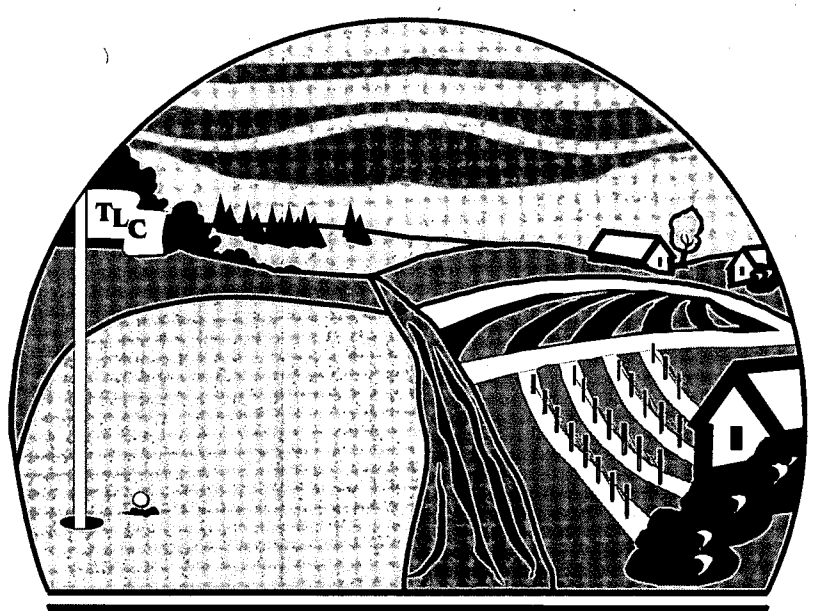
FACILITY NAME: Water Pollution Control Facility
VPDES PERMIT NUMBER: VA0092282
VPDES Sewage Sludge Permit Application Form - Attachment 3

Section A. 8. Pollutant Concentrations

Pollutant	Concentration (mg/kg dry weight) sample 1: 1/4/2012	sample 2: 4/4/2012	sample 3: 7/17/2012	Average Concentration (mg/Kg dry weight)	Analytical Method	Detection Level
Nutrient Components						
Fecal Coliform	<2 CFU	CFU	<2 CFU	<2 CFU		
Total Nitrogen	59004	90104	69000	72703	SM Calc	55
Ammonia as N	3000	2600	3300	2967	SM 4500NH3-C	11
Water Insoluble N	54000	47800	43000	48267	AOAC 2.4.14	55
TKN	56000	64100	69000	63033	SM 4500NH3-C	55
Nitrite as N	<2	<2.2	<2	<2	SM 4500NH3-C	2
Nitrate as N	<2	<2.2	<2	<2	SM Calc	2
Potassium	40000	3200	1900	15033	EPA 6010C	11
Available Potassium	6100	5300	5000	5467	AOAC 983.02	11
Total Phosphorus	11000	19500	14000	14833	SM 4500P-E	0.5
Available Phosphorus	40000	45600	27000	37533	AOAC 993.31	0.5
Trace Elements						
Arsenic	<1	1.6	2	<1.5	EPA 6010C	1
Boron	280	240	290	270	EPA 6010C	5
Cadmium	4.1	<1.1	2	<2.4	EPA 6010C	1
Calcium	19000	22400	20100	20500	EPA 6010C	11
Chloride	1000	650	910	853	SM 4500-CL-E	110
Chromium	34	55	27	39	EPA 6010C	1
Copper	560	580	660	600	EPA 6010C	1
Iron	49000	39400	52000	46800	EPA 6010C	11
Lead	38	36	34	36	EPA 6010C	1
Magnesium	3690	4500	4000	4063	EPA 6010C	11
Manganese	380	470	380	410	EPA 6010C	1
Mercury	<8.3	<1.6	0.4	<3.4	EPA 7470	0.09
Molybdenum	<5	<5.4	<5	<5.1	EPA 6010C	5
Nickel	7.61	9.3	7	8.0	EPA 6010C	2
Selenium	<2	<2.2	<2	<2.1	EPA 6010C	2
Sodium	924	950	780	885	EPA 6010C	55
Sulfur	8010	8400	9300	8570	EPA 6010C	11
Zinc	436	460	560	485	EPA 6010C	2
Cd./Zn.	0.94%	0.24%	0.36%	0.51%		

Attachment 4
Label

Tuscarora Landscaper's Choice



Give Your Plants Some TLC

SOIL AMENDMENT PRODUCT

- ✔ Slow Release
- ✔ Rich In Iron For Greener Grass, Shrubs & Plants
- ✔ Adds Organic Matter
- ✔ Non-burning

Net Weight 50 lbs.

Produced by
Town of Leesburg in Virginia
Utilities Department
Water Pollution Control Division

Tuscarora
Landscaper's Choice

Naturally Occurring Nutrient Levels

Total Nitrogen (N)	6.00%
1% water soluble organic nitrogen	
5% water insoluble nitrogen	
Available Phosphate (P2 O5)	3.00%
Phosphorus (P)	3.00%
Calcium (Ca)	2.00%
Iron (Fe)	1.00%
Sulfur (S)	0.75%
Potassium (K)	0.50%
Magnesium (Mg)	0.40%
Sodium (Na)	0.05%
Zinc (Zn)	0.02%
Manganese (Mn)	0.01%

Recommended Uses:

Tuscarora Landscaper's Choice is an organic by-product converted into a valuable all natural product. It is an excellent soil amendment for lawns, trees, shrubs, and flowers. It provides a valuable source of nutrients which are essential to plant growth and provides organic matter which enhances soil structure and quality. Tuscarora Landscaper's Choice can be applied through any spreader used for granular material. The use of Tuscarora Landscaper's Choice soil amendment will support the ongoing efforts in the protection, restoration and preservation of the Potomac River and Chesapeake Bay watersheds.

Established Lawns

For most lawns in the Mid-Atlantic area using cool-season grasses (fescue, bluegrass, ryegrass), three applications per year are recommended (spring, late summer, fall). Apply at a rate of 50 lbs. per 3,000 sq. ft.

New Lawns

Apply to soil at a rate of 50 lbs. Per 1,500 sq. ft. before seeding. Cover the entire area and rake into the top 2 inches of soil.

Trees and Shrubs

Single Plantings: Use 5 lbs. of product for each inch of tree trunk diameter measured 4 ft. from the ground, or 2 cups of product per shrub.

New Shrub Beds: Prior to planting, apply 5 lbs. of product per 100 sq. ft. to the shrub bed and mix it into the soil.

Established Shrubs: Apply 1 to 2 cups of product around the base of shrubs and mix it into the soil. Best results are obtained in the spring.

Flowers and Vegetables

Annuals: Uniformly apply 3 lbs. of product per 100 sq. ft. of the seed bed prior to planting and work into the soil. Reapply when flower buds form with 2 lbs. per 100 sq. ft.

Perennials: Apply 2 lbs. of product per 100 sq. ft. in spring and again after blooming to strengthen plants for the following season.

Vegetables: Apply 5 lbs. per 100 sq. ft. prior to rototilling your garden.

Application Information:

2-1/2 cups of Tuscarora Landscaper's Choice equals 1 lb. A large coffee can (approximately 2-1/2 lb. size) holds 5 lbs. of product. The bulk density is approximately 45 lbs. per cubic foot. The pellets are approximately 1-2 mm in diameter (0.040 – 0.080 inches)

Tuscarora Landscaper's Choice is an organic biosolids product meeting the U.S. Environmental Protection Agencies "Exceptional Quality" standards for beneficial use. Apply this product in accordance with label directions. Do not apply in or near any public or private water supplies including wells, streams, or lakes. Do not apply to flooded or frozen land. Store unused product away from children and pets in a cool, dry area.

If you have questions regarding this product, please call the Leesburg Water Pollution Control Facility at 703-737-7100, M-F, 8:00 AM – 5:00 PM.

VPDES Permit Application Addendum

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Town of Leesburg

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** Yes ☒ No ☐

3. **Provide the tax map parcel number for the land where the discharge is located.** 110279263

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** N/A

5. **What is the design average effluent flow of this facility?** 7.5 MGD
For industrial facilities, provide the max. 30-day average production level, include units:

In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Yes ☒ No ☐
If "Yes", please identify the other flow tiers (in MGD) or production levels:
10.0 MGD

Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. **Nature of operations generating wastewater:**
Domestic and commercial sources

90 % of flow from domestic connections/sources
Number of private residences to be served by the treatment works: Approximately 11,000

10 % of flow from non-domestic connections/sources

7. **Mode of discharge:** ☒ Continuous ☐ Intermittent ☐ Seasonal
Describe frequency and duration of intermittent or seasonal discharges:

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
X Permanent stream, never dry
___ Intermittent stream, usually flowing, sometimes dry
___ Ephemeral stream, wet-weather flow, often dry
___ Effluent-dependent stream, usually or always dry without effluent flow
___ Lake or pond at or below the discharge point
___ Other:

9. **Approval Date(s):**
O & M Manual September 17, 2008 **Sludge/Solids Management Plan** May 10, 2002

Have there been any changes in your operations or procedures since the above approval dates? Yes ☐ No ☒

Public Notice Billing Information

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in accordance with 9VAC25-31-290.C.2.

Agent/Department to be billed:	Utilities
Owner:	Town of Leesburg
Applicant's Address:	25 West Market Street
	Leesburg, VA 20176
Agent's Telephone Number:	(703) 737-7199
Authorizing Agent:	Amy K. Wyks
	Signature

VPDES Permit No. VA0092282
Town of Leesburg Water Pollution Control Facility

Please return to:

Douglas Frasier
VA-DEQ, NRO
13901 Crown Court
Woodbridge, VA 22193-1453
Fax: 703-583-3821